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May 7, 1984

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THIS WEEK

Red Deer Meat Processor Receives Nutritive Processing Assistance	1
Agricultural Weather Forecasts For Alberta	2
Forage Crops Are Big Business In Alberta	3
Supplemental Feed For Beef Cow Herds	5
Leg Weakness Syndrome In Broiler Chickens	7
Be Careful When Using Dual-Purpose Seed Treatment Products	9
Plebiscite On Continuation Of Alberta Hatching Egg Marketing Board	10
Deadline For Summer Farm Employment Program Applications	11
Alberta Pork Congress	12
Pedigreed Seed Show Winners	13
Alberta's Top 4-H Speakers	15
Safety Clothing Precautions For Pesticide Applicators	16
District Home Economist Appointed To Wetaskiwin	18
District Home Economists-In-Training	19

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Alberta
AGRICULTURE
Print Media Branch



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May 7, 1984

FOR IMMEDIATE RELEASE

RED DEER MEAT PROCESSOR RECEIVES NUTRITIVE
PROCESSING ASSISTANCE

Fletcher's Limited, a Red Deer meat processor, will receive \$596,500 under the Canada-Alberta Nutritive Processing Assistance Agreement.

The firm will use the money to add 40,000 square feet to its existing buildings, which will house complete pork cutting and boning operations and contain modern equipment and improved cutting, freezing and distribution areas. The firm's president, Garry MacMillan, says that the \$2.9 million project will enable the firm to compete more effectively in the export market place, and that an estimated 84 jobs will be created.

An announcement of the assistance to Fletcher's Limited was made by Senator H.A. Olson, leader of the federal government in the senate, on behalf of Ed Lumley, federal Industry Minister, and Alberta's minister of agriculture, LeRoy Fjordbotten in conjunction with a sod-turning ceremony in Red Deer.

Since the Nutritive Processing Assistance Agreement was signed in 1975, more than \$23 million has been offered to rural Alberta food processors under the agreement, which is jointly administered and equally funded by the federal Department of Regional Industrial Expansion (DRIE) and Alberta Agriculture.

A one year extension to the agreement was signed by the two levels of government last year to give those interested until September 30, 1984 to apply for assistance.

- 30 -

May 7, 1984

FOR IMMEDIATE RELEASE

AGRICULTURAL WEATHER FORECASTS FOR ALBERTA

Alberta will have a prototype province-wide weather forecast that is tailored to agricultural needs starting May 14 and continuing until harvesting operations have been completed, says Alberta Agriculture's agrometeorologist, Conrad Gietz.

Produced by the Atmospheric Environment Service, the forecasts will be issued to radio and television stations in the early morning and again in the late afternoon including weekends. And they will be aired at the end of the regular public weather forecasts throughout the day.

According to the Atmospheric Environment Service's senior meteorologist, Mitch Makowsky, the agricultural forecasts will consist of three to five-day weather outlooks, which will include the relative humidity cloud cover, maximum and minimum temperatures and the probability of precipitation for three days. It will also include general weather trends such as prolonged cold, wet and dry periods. And there will be information on soil temperatures during the seeding season, wind conditions during the spraying season and drying conditions during haying and harvesting. The Friday afternoon forecasts will consist of a summary of the past week's weather conditions.

Whether or not the agricultural weather forecasts are continued again next year will depend this year's response, says Mr. Makowsky.

Further information on the forecasts can be obtained from district agriculturists and local weather offices.

- 30 -

May 7, 1984

FOR IMMEDIATE RELEASE

FORAGE CROPS ARE BIG BUSINESS IN ALBERTA

Because forage crops are used as livestock feed on the farms on which they are grown, the overall value of these crops is often overlooked.

Alberta Agriculture's supervisor of forage crops, Myron Bjorge, reports that the province's annual forage production is worth more than \$600 million. He points out that this figure represents a conservative estimate of the on-farm value of these crops and excludes such associated benefits as the higher retail prices that can be obtained when the crops are processed.

He says tame hay has the highest value of the forage crops, and that the provincial tame hay crop includes 3.6 million acres of perennial hay, which yields 1.75 tons per acre. When valued at \$55 per ton, this acreage of perennial hay is worth \$346 million. In addition, the province also produces 0.7 million acres of cereal silage and greenfeed, which adds up to another \$70 million, making a total value of \$416 million. And alfalfa accounts for approximately 40 per cent of this value, according to Mr. Bjorge. He says much of the alfalfa in Alberta is now being grown in pure stands.

Alberta's forage production for use as pasture totals 14.6 million animal unit months of grazing. One animal unit month represents the amount of pasture that a cow and a calf require for a month. The 14.6 million animal unit months of grazing is equivalent to 7.4 million tons of dry fodder (compared with 7.7 million tons of hay, silage and greenfeed). When valued at \$11 per animal unit month, Alberta's total yearly pasture production is worth \$163 million.

Mr. Bjorge reports that there are approximately equal quantities of tame and native pasture in the province, and that there is presently a great deal of interest in increasing pasture yields. Pastures provide a very economical and nutritious livestock feed.

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Forage Crops Are Big Business In Alberta (cont'd)

Mr. Bjorge says that forage seed production in Alberta is quite variable from one year to another, but that a 30 to 35 million pound-crop is normal. The on-farm value of the province's "normal" crop is about \$25 million. "Our forage seed", says Mr. Bjorge, "is of a high quality and many of the forage varieties grown here are important fodder crops. And forage seed is an important export commodity".

Forage crops have additional values over and above those used to estimate the on-farm cash equivalent of \$600 million. For example, they conserve the soil by reducing wind and water erosion and by increasing its organic matter. Nitrogen fixation by legumes reduces the fertilizer costs for both forage and subsequent crops and dehydrated alfalfa and forage seed retail sales add further value to the industry.

Finally, Alberta's beef, dairy, sheep and horse industries could not exist without a productive forage industry.

May 7, 1984

FOR IMMEDIATE RELEASE

SUPPLEMENTAL FEED FOR BEEF COW HERDS

A fairly large number of Alberta beef cow herds are going to need supplemental feed this spring.

Many are going on pasture much earlier than usual, because of the abnormally early spring, but a large proportion of the pastures do not have enough growth to meet the feed requirements of the cows. And the head of Alberta Agriculture's animal nutrition section, Ron Weisenburger, says spring pasture growth in many parts of the province is likely to be severely restricted due to low sub-soil moisture reserves, a very much below normal snow cover and little spring rain. He points out that the resultant poor pasture growth will coincide with the time that the nutritional needs of the cows are at their highest, which means that in many cases it will be necessary to provide supplemental feed.

Thin cows and cows that are not gaining weight will have a much poorer rebreeding performance than cows that are in good condition and gaining weight as the breeding season approaches. Mr. Weisenburger says cows that do not receive enough feed between the time they calve and the time they are re-bred will produce fewer calves next spring and a larger proportion of the calves will be born late in the season. He also says the magnitude of the loss from less calves and late season calves will depend upon the condition of the cows and the severity of the underfeeding that they experience between the time they calve and the start of the breeding season. He reports that a 20 to 25 per cent net decrease in calf weaning weights the following year are not uncommon when cows are underfed at this time of year.

The following is a list of things that can be done to prevent (underfeeding problems.

- Check the condition of the cows now. If they are thin, give them extra feed.

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Supplemental Feed For Beef Cow Herds (cont'd)

- Monitor the weight gains of the cows. Ideally, this should be done by weighing them every few weeks. However, it is usually more practical to monitor their body condition. If it is not improving, they need more feed.

- Provide supplemental feed when necessary. Some possibilities include feeding 2.3 to 3.6 kg (5 to 8 pounds) of grain or high energy range cubes or 4.5 to 6.8 kg (10 to 15 pounds) of good quality hay, alfalfa pellets or cubes. The choice of feed should be based on availability and price, and the amounts stated above should be used as a starting point. In other words, the actual amount of supplemental feed provided should be based on cow performance, and, remember, it is better to overfeed than to underfeed at this time of year.

- Mix a supplemental calcium-phosphorous mineral with the grain if grain is being fed. The mineral should contain at least 8 per cent phosphorous and twice as much calcium as phosphorous (2:1 mineral). If the ration is mainly hay and grass either a mineral containing at least 14 per cent phosphorous and an equal amount of calcium (1:1 mineral) or the 2:1 mineral mentioned above can be used. When no grain is being fed, the mineral should be mixed with salt and fed free-choice. In this case it is important to make sure the cows eat it. Calcium and phosphorous supplementation may not be needed if range cubes are being fed.

- Feed a trace mineralized salt free-choice that contains at least 0.007 per cent iodine, 0.004 per cent cobalt, 0.25 per cent copper and 0.75 per cent zinc. When grain is being fed some of the salt can be mixed with the grain. The prolonged use of a salt product that has been medicated with EDDI is not recommended, and a salt product that contains 0.25 per cent copper can be toxic to sheep.

Supplemental selenium or vitamin A may be needed, depending upon individual situations.

More information on supplemental feeding beef cow herds can be obtained by telephoning Alberta Agriculture's animal nutrition section at 436-9151.

May 7, 1984

7

FOR IMMEDIATE RELEASE

LEG WEAKNESS SYNDROME IN BROILER CHICKENS

Small broiler flock owners are often puzzled when they see leg problems developing in their birds, especially when they see them for the first time.

The birds may be seen hobbling around on one leg, they may have crooked toes or they may just sit around a lot. The cause of the problems, according to Alberta Agriculture's poultry pathologist, Dr. D.K. Onderka, is abnormal bone growth. It causes the "drumstick" to twist or rotate, which, in turn, causes the leg to stick out at an angle from the hock joint. Dr. Onderka says leg weakness can also be caused by a kink in the spinal column. The resulting pressure on the spinal cord causes paralysis.

Birds suffering from the leg weakness syndrome often "walk" on their hocks, which may turn a dark blue to green color from the blood that has collected under the skin. Older broilers may develop a wide stance with their knees sticking out, and they often have a tendency to sit down a lot. Dr. Onderka says such birds have an abnormal amount of cartilage in their "drumstick" bones, which causes them to bend and even fracture and the birds to become lame.

Some people may wonder why leg weakness was virtually unknown in the days when chickens were allowed to run loose. According to Dr. Onderka, it has developed as a result of today's highly specialized meat-type birds. He explains that they are bred to grow extremely fast and to achieve a high feed efficiency rate. Also, the genetic make-up of these birds probably changes every few years, and their specialized breeding requires certain compromises. One of these allows for the possibility of a certain percentage to develop leg weaknesses.

- (cont'd) -

Leg Weakness Syndrome In Broiler Chickens (cont'd)

Although it has been shown that broilers have a genetic predisposition to leg weakness, there are other factors involved in the problem. One of these is diet. Broilers require a very precisely formulated ration, and it is quite possible, says Dr. Onderka, that nutritionists do not yet know the exact requirements of broiler chickens. Housing conditions, litter, lighting, etc. also seem to play a role in the leg weakness syndrome.

According to Dr. Onderka, examinations that have been carried out on specimens of crippled birds have not shown evidence of any obvious error in nutrition, such as a lack of calcium or vitamin D, which cause rickets, or a deficiency in manganese or niacin, which cause perosis or slipped tendon. He says the bone strength and the microscopic structure of the bone has been found to be normal, apart from the retention of an abnormal amount of cartilage. However, for some unknown reason the leg bones become deformed as the bird grows.

Dr. Onderka points out that the incidence of leg weakness can be reduced by growing broilers at a slower rate through cutting back on their energy intake. He also says there is no known treatment for the leg weakness syndrome, and that hatcheries have no way of predicting which chicks are likely to develop it. However, many of the birds that develop the condition manage to get enough feed and water to grow into good meat birds, which are perfectly safe for human consumption.

May 7, 1984

FOR IMMEDIATE RELEASE

BE CAREFUL WHEN USING DUAL-PURPOSE
SEED TREATMENT PRODUCTS

Every year Alberta Agriculture's crop protection branch receives reports of chickens, ducks and cattle that have been poisoned by lindane.

Lindane is the insecticide that is contained in dual-purpose pesticides that are used for treating seed before it is planted. It protects the seed against wireworms and flea beetles, while the one or two fungicides also contained in these products protects it against such crop diseases as blight, smut and bunt. According to Dr. Moe Hussain, Alberta Agriculture's pesticide issue coordinator, the fungicides are not harmful, but the lindane is fairly hazardous.

He says many farmers feed seed that has been treated with a dual-purpose product to their chickens and ducks, and that many also use pesticide-contaminated grain augers to move grain for their cattle without first washing them out.

Since people can also be poisoned by lindane, farmers who use dual-purpose seed treatment products should always wear coveralls, gloves and a respirator during the operation. And they should thoroughly wash out the auger before it is used for anything else. Any treated seed that is left over should be buried to avoid accidental livestock poisonings.

And Dr. Hussain advises farmers who purchase seed that has already been treated to find out whether or not it was treated with a dual-purpose product. However, even if it was not, it should never be fed to poultry or livestock and the person handling it should always wear rubber gloves.

Among the dual-purpose seed treatment products that are on the market today are Gammasan, Benolin R, Thiralin Plus, Vitavax RS Flowable, Vitavax RS Powder, Vitavax Dual Powder, Vitavax Dual Solution, Coop D-P, Mergamma N-M and Pool N-M Dual.

FOR IMMEDIATE RELEASE

PLEBISCITE ON CONTINUATION OF ALBERTA
HATCHING EGG MARKETING BOARD

Registration forms have been mailed out by the Alberta Agricultural Products Marketing Council to eligible hatching egg producers in the province so that they can vote in the plebiscite on whether or not to continue the Alberta Hatching Egg Marketing Board.

The operation of the marketing board was approved by a producer plebiscite in 1981 with the provision that another plebiscite be held within three years. A positive vote in the present plebiscite will mean that the board will continue in operation under the authority of the Marketing of Agricultural Products Act. A negative vote will mean that it will cease operating at the end of June.

Eligible hatching egg producers must register with the Alberta Agricultural Products Marketing Council to receive a ballot to vote in the plebiscite. An eligible producer is anyone who held a quota allotted by the Alberta Hatching Egg Marketing Board on April 9, 1984.

Any eligible producer who does not receive a registration form in the mail should contact the council before May 16, 1984, because all forms must be postmarked by that date.

The address of the Alberta Agricultural Products Marketing Council is 7000-113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-2164).

- 30 -

May 7, 1984

FOR IMMEDIATE RELEASE

DEADLINE FOR SUMMER FARM EMPLOYMENT
PROGRAM APPLICATIONS

June 1 is the deadline for receipt of applications for employment under the Alberta Summer Farm Employment Program but the limit of 800 students is expected to be reached well before that date.

The aim of the program is to provide work experience for students, and about 27,000 young people have participated in it since it was started 12 years ago. Under the program any Alberta farmer can hire a student, provided that he and the student are not related. The Alberta government will pay half the student's monthly salary up to a maximum of \$300.

Prospective students must be at least 15 years old and they must have the written consent of their parents if they are under 18. They must be residents of Alberta, and they must be legally entitled to work in Canada. They must also be prepared to work for at least one month and to attend one of Alberta Agriculture's farm safety seminars.

Applications from potential employers who wish to participate in the program will be accepted on a first come, first served basis, with priority being given to farmers who did not participate last year.

Both employee and employer application forms can be obtained from district agriculturists and from Canada farm labor pool offices.

Further information on the Alberta Summer Farm Employment Program can be obtained from Bernie Yakimyshyn, Coordinator of Special Employment Programs, Alberta Agriculture, 7000-113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-2186).

May 7, 1984

FOR IMMEDIATE RELEASE

ALBERTA PORK CONGRESS

The 1984 Alberta Pork Congress will celebrate its 10th congress this year with the theme "Ten Years Leaner".

The events will take place from June 12 to 14 and, for the first time, the Swine Section of the University of Alberta will present the results of some of their research on June 14 as part of the congress's program.

Following the congress, on June 15, the university will continue its "Feeders' Day" Program. Further details on the program will be forthcoming.

- 30 -

May 7, 1984

FOR IMMEDIATE RELEASE

PEDIGREED SEED SHOW WINNERS

Following is a list of the winners at the Northlands Western Pedigreed Seed Show, which was the first and only pedigreed show ever to have been held in Alberta. There were more than 225 samples exhibited and more than \$10,000 worth of prizes and trophies.

Hard Red Spring Wheat — Jerry Kubik, Wrentham, won first prize with a sample of Columbus
Winter Wheat — Jerry Kubik won first prize with a sample of Norstar.

Durum/Utility/Soft White Wheat — John Crooysman, Bow Island, won first prize with a sample of Fielder.

The grand championship and the reserve grand championship in the wheat section were won by Jerry Kubik and Tony Crooysman of Bow Island respectively.

Winter and Spring Rye — Watson's Seed Farm, High Level, won first prize with a sample of Muskateer.

Six-Row Barley — Lyster Farms, Stettler, won first prize with a sample of Leduc.

Two-Row Barley — Holmen Seed Farms, Wayne, won first prize with a sample of Harrington.

The grand championship and the reserve grand championship in the rye and barley section were won by Holmen Seed Farms and Gordon Rasmussen of Standard respectively.

Oats — Frank Greenfield, Westlock, won first prize with a sample of Grizzly.

The grand Aggregate Cereal Banner was won by Holmen Seed Farms.

Canola (B. napus) — Ed Krwyko, Morinville, won first prize with a sample of Westar.

Canola (B.campestris) — Jerry Kubik won first prize with a sample of Tobin.

The grand championship and the reserve grand championship in the canola section were won by Ed Krwyko and Jerry Kubik respectively.

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Pedigreed Seed Show Winners (cont'd)

Flax — Tony Crooysman won first prize with a sample of McGregor.

The Grand Aggregate Oil Trophy was won by Tony Crooysman.

Pulse Crops — Roy James Anderson, Paynton, Saskatchewan, won first prize with a sample of field peas.

Alfalfa — Jack Reddekopp, Rosemary, won first prize with a sample of Thor.

The grand championship and the reserve grand championship in the legume section was won by Jack Reddekopp and Steve Merkl of Brooks respectively.

Red Fescue — Hadland Seed Farm, Baldonnel, B.C., won first prize with a sample of Boreal.

Timothy — Frank Kastelic, Sangudo, won first prize with a sample of Champ.

The grand championship and the reserve grand championship in the forage grasses section were won by Frank Kastelic and Hadland Seed Farm respectively.

The Grand Aggregate Forage Trophy was won by Jack Reddekopp.

The Association of Alberta Co-op Seed Cleaning Plants Trophy was won by the Three Hills and District Seed Cleaning Plant under the management of Watson Reed.

The Other Seed Plant Aggregate was won by the Alberta Wheat Pool of Lethbridge.

In the junior section, Tasha Kubik of Wrentham won first prize in the cereal class with a sample of Columbus wheat and first prize in the oilseeds class with a sample of Tobin.

May 7, 1984

FOR IMMEDIATE RELEASE

ALBERTA'S TOP 4-H SPEAKERS



(Left to Right) Bill Dent, Assistant Deputy Minister, Alberta Agriculture; Rob Smith; Heather Brown; Bill Dietrich; Patsi Minnes, Director, Calgary Exhibition and Stampede.

Heather Brown of Big Valley is Alberta's champion 4-H public speaker this year.

Her two speeches "Canada's Unknown Ambassadors" and "Air Travel — Taking Your Chances" took top honors at the recent 4-H provincial championship in Calgary.

Rob Smith of Olds placed second and Bill Dietrich of Forestburg was third. There were nine finalists from rural Alberta in the championship speak-off, and more than 5,000 4-H members in the province's 540 clubs participated in speech art activities.

The speaking championship, jointly sponsored by the Calgary Exhibition and Stampede and Alberta Agriculture, is the culmination of the competitive part of the 4-H public speaking program, which is open to young people between the ages of 10 and 21.

- 30 -

FOR IMMEDIATE RELEASE

SAFETY CLOTHING PRECAUTIONS FOR PESTICIDE APPLICATORS

Anyone who handles very toxic pesticides should always wear a lightweight, waterproof rain coat or apron, in addition to the usual recommended protective clothing, to prevent the pesticide from coming in contact with the skin. Pesticide contact with the skin represents a major hazard for those who work with very toxic chemicals.

It is also important that clothes worn while applying pesticides be clean, dry and free of holes and tears, and that a wide-brimmed, waterproof hat be worn to protect the neck, eyes, mouth and face. And they should be washed after each wearing.

Bertha Eggertson, Alberta Agriculture's provincial clothing and textile specialist, recommends pesticide applicators wear a plastic "hard hat" which has a plastic sweatband because "hard hats" are waterproof and cool in the hot weather. She points out that hats that have a cloth or leather sweatband should not be worn because the cloth is difficult to clean and the leather is impossible to clean.

Other safety precautions recommended by Ms. Eggertson include:

- Keeping clothes worn when applying pesticides for that use only. Some pesticides are difficult to remove and clothes worn while handling them could still contain some residue even after they have been washed.
- Changing clothes as soon as possible if they should get wet when applying pesticides and destroying them if the chemical is very toxic. A very toxic pesticide is practically impossible to remove.
- Taking pesticide-contaminated clothes off outside when possible. In the case of a granular pesticide, shake the clothes outside, empty the pockets and remove any granules from cuffs, etc.

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Safety Clothing Precautions For Pesticide Applicators (cont'd)

- Putting contaminated clothes in a separate plastic bag and washing them separately from other clothing.

- Washing gloves, goggles, boots, hat and face shield daily.
- Showering and shampooing the hair before putting on clean clothes.
- Washing hands thoroughly before eating, smoking or going to the bathroom because the pesticide residue could be transferred to the food, cigarettes or other parts of the body.

- Avoiding wearing a wrist watch that has a leather strap or any type of leather ornament because leather that becomes contaminated with a pesticide cannot be decontaminated.

Finally, Ms. Eggertson says " A person who uses pesticides should always read the label carefully because the toxicity of the various products varies greatly and the toxicity level will determine the type and amount of protective clothing that should be worn."

May 7, 1984

FOR IMMEDIATE RELEASE

DISTRICT HOME ECONOMIST APPOINTED TO WETASKIWIN

The head of Alberta Agriculture's home economics branch, Shirley Myers, has announced the appointment of Randi Sandbu to the position of district home economist at Wetaskiwin.

Ms. Sandbu was born in Camrose and grew up on a mixed farm near Hay Lakes. She graduated from the University of Alberta in 1974 with a B.Sc. (home economics), having majored in clothing and textiles.

Since she graduated Ms. Sandbu has been district home economist at Rimbey, Lacombe and Ponoka.

- 30 -

FOR IMMEDIATE RELEASE

DISTRICT HOME ECONOMISTS-IN-TRAINING

The head of Alberta Agriculture's home economics branch, Shirley Myers, has announced that the following people have started their district home economist training with the department.

Tracy Duncan

Ms. Duncan is taking her training at the Wainwright office. She was born on the naval base in Nova Scotia and moved with her family to Calgary when she was three years old. She has her B.Sc. (home economics) from the University of Alberta, having graduated in 1981 with a major in clothing and textiles. Since graduating she has been a 4-H winter assistant in Airdrie; a summer employee for rural engineering in Red Deer and a 4-H assistant in Edmonton.

Rita Olmscheid

Ms. Olmscheid is taking her training at the Ponoka office. She was born in Minnesota, U.S.A. and moved with her family to a mixed farm in Alberta in 1976. She graduated from the University of Alberta with a B.Sc. (home economics) in 1983, having majored in family studies. She worked with Travel Alberta's Country Vacation Program from May 1983 to March 1984.

Chris Dudley

Ms. Dudley is taking her training at the Sedgewick office. She was born in Calgary and grew up in southern Alberta. She graduated from the University of Alberta with a B.Sc. (home economics) in 1982, having majored in family studies. Following graduation she worked on the Nutrition at School Program in the counties of Strathcona and Parkland and in Calgary at the Consumer Education Department of Alberta Consumer and Corporate Affairs.

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District Home Economists-In-Training (cont'd)Rebecca Lore

Ms. Lore is taking her training at Pincher Creek. She was born and raised in Edmonton and graduated with a B.Sc. (home economics) from the University of Alberta in 1983, having majored in clothing and textiles. She worked for Sears as a demonstrator of microwave ovens and sewing machines from the fall of 1983 to the spring of 1984.

Kathy Vettman

Ms. Vettman is taking her training at the Warner office. She was born in Edmonton and grew up on a horse ranch near Fort Saskatchewan. She graduated with a B.Sc. (home economics) from the University of Alberta this spring, having majored in clothing and textiles.

Jackie Gendre

Ms. Gendre is taking her training in the Hanna office. She grew up on a beef and grain farm southwest of High River and graduated with a B.Sc. (home economics) from the University of Alberta in 1983, having majored in family studies. She worked for the Burnewood Community League in Edmonton following graduation and did volunteer work with Edmonton Social Services where she was responsible for developing resources for meal planning on a limited budget.

May 14, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Cattle Outlook	1
Hog Outlook	3
Emergency Pasture Measures Recommended.	5
Natural Carcinogens Found In Food	6
Dual-Purpose Forage Mixtures.	8
Powdery Mildew In Field And Garden Peas.	10
A Display Of Alberta's Pests Over The Years.	11
1984 Feeders' Day Program	12
Forage Equipment Field Day Slated For Lakeland College	14
Lifesaver Course For Farmers	15
Strawberry Abnormalities	16
Ten Years Old And Still Growing!	17
Laundering Pesticide-Contaminated Clothing	18
Secretary Manager Of Alberta Dairy Control Board Appointed.	20

May 14, 1984

1

FOR IMMEDIATE RELEASE

CATTLE OUTLOOK

Grain fed slaughter cattle prices are expected to decrease during May and to remain in a flat trading range for the remainder of the second quarter. And feeder cattle prices are expected to follow a similar pattern.

Alberta Agriculture's livestock analyst, Gordon Herrington, believes that second quarter prices for A1 and A2 steers at Calgary will have fallen to the \$74 to \$75 per hundredweight range by the end of June from the low \$80 per hundredweight range early in the second quarter. And he says steer-heifer discounts are expected to widen during this period.

Mr. Herrington also expects third quarter fed slaughter cattle prices at Calgary to weaken slightly to the low \$70 per hundredweight level from the mid-\$70 per hundredweight range. Although prospects for a mid-third quarter rally to the mid-\$70 per hundredweight level are still considered good, Mr. Herrington says such a rally will be short-lived and based on a moderate, brief, downward change in slaughter supplies.

In spite of the general improvement in economic conditions, there are no indications that the demand for beef is capable of a significant short-term improvement. In fact, increasing supplies of slaughter cattle are expected to result in an ample supply of beef, which means a downward trend in wholesale prices will be required to move beef into the consumption channels even though the summer demand is traditionally better than the winter demand.

Feeder Cattle

Mr. Herrington says the early summer demand for feeder cattle is not expected to be strong either, especially if price pressure on slaughter cattle develops as beef supplies become more plentiful. However, the demand should strengthen from mid-summer onwards if grain supplies and prices indicate a widening of feeding margins.

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Cattle Outlook (cont'd)

Feed supplies at the present time are generally considered to be tight and expectations are for a greater number than normal of feeders to be put on pasture until such time as the supply and price of feed grains become more favorable.

According to Mr. Herrington, a winter shortage of heavyweight short-keep feeders in Western Canada resulted in a reduction in the first quarter 1984 slaughter and in feedlot replacements that consisted of a high proportion of lightweight animals. These lightweight placements will be finished in the second quarter and provide an ample supply of beef during the summer. Adverse weather in the United States delayed feedlot weight gains and first quarter marketings, which resulted in a large proportion of heavyweight cattle being on feed by the end of March. These animals are expected to be marketed in the summer months and to provide a good supply of beef.

Cows

Slaughter cow prices through July are expected to be similar to those in April.

The above article is based on information that was available in April, 1984.

May 14, 1984

FOR IMMEDIATE RELEASE

HOG OUTLOOK

Alberta 100 index hog prices are expected to advance to the mid-\$70 per hundredweight price range during the second quarter of this year and to advance towards the low \$80 per hundredweight range midway in the third quarter before declining again.

Gordon Herrington, Alberta Agriculture's livestock market analyst, expects the price differentials between Alberta and the mid-western United States market prices to remain wide. He also expects U.S. prices to be in the low \$50 US per hundredweight range during the second quarter and in the \$60 US per hundredweight range during the third quarter. And he points out that if the Alberta-U.S. cash basis is narrowed, Alberta 100 index hog prices could be stronger.

Statistics Canada estimates of market hog inventory and farrowing intentions on April 1 suggest that the hog output expansion will continue but at a slower rate. Mr. Herrington says Western Canadian expansion will be at a greater rate than that in Eastern Canada, and that the total output over the next five months is expected to be 3 per cent higher than similar estimates for 1983. First quarter and second quarter 1984 farrowing intentions indicate an increase in output levels of 5 per cent and 2 per cent respectively.

Relative to beef, pork has been competitively priced, and the demand for pork products has been considered good, given their plentiful supply, Mr. Herrington says. He points out that beef supplies are expected to become more plentiful during the second quarter of this year and beef prices are expected to retreat, whereas the overall North American supply of hogs is expected to contract and pork prices to move upwards. This should start to happen in the second quarter, and prices are expected to peak in the August-September

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Hog Outlook (cont'd)

period. However, Mr. Herrington expects hog price movements to be inhibited by competitive meat prices even though pork wholesale-retail margins are forecast to contract as supplies are drawn down.

The March 1, 1984 United States Department of Agriculture 10-State Hog Inventory Report indicated that the hog industry in that country was well into the contraction phase of the current cycle. According to Mr. Herrington, short-term heavyweight market hog supplies will still be plentiful, but production will continue to contract relative to the performance of a year ago, and this contraction will continue for the remainder of 1984 and into the early part of 1985. If carried out, smaller U.S. farrowing intentions in the second quarter of this year will also prolong the hog cycle's reduction phase.

The above article is based on information that was available in April, 1984.

May 14, 1984

FOR IMMEDIATE RELEASE

EMERGENCY PASTURE MEASURES RECOMMENDED

Alberta cattlemen could experience a shortage of pasture and/or hay this year.

This is the opinion of the head of Alberta Agriculture's forage and special crops section, Aubrey Sherman, who strongly advises cattlemen to start planning now to reduce the adverse effects of such a feed shortage. He says a lack of moisture in some areas of the province indicates the very real threat of a shortage of summer pasture and of hay for next winter.

Mr. Sherman advises cattlemen to consider:

- Sowing a cereal crop, such as oats, barley, fall rye or winter wheat for use as an emergency pasture or for use as forage next winter, while there is still sufficient moisture in the soil to make the crop germinate. If oats or barley are planted and they are not used for pasture or forage, they can be harvested as silage or grain. Although spring-sown fall rye and spring-sown winter wheat cannot be harvested as grain, both crops will provide good fall grazing.

- Confining beef cows in a small part of the total pasture area for as long as possible. Giving the remainder of the pasture an additional month to grow will markedly increase the amount of forage it will produce this season. However, this practice will necessitate supplemental feeding while the animals are confined.

- Fertilizing tame pastures if there is a good mid-summer rain.
- Grazing hay land rather than legume forages if it becomes necessary to provide additional pasture during the summer because legumes provide a better second-cut than grasses.

Mr. Sherman says "It is unfortunate, but when it comes to adopting emergency measures to deal with a drought situation, it is often a case of doing too little, too late!"

FOR IMMEDIATE RELEASE

NATURAL CARCINOGENS FOUND IN FOOD

Although more than 10 chemicals that occur naturally in human food are known to cause cancer, birth defects and mutations in laboratory animal tests, none of them poses a health hazard to people, according to Dr. Moe Hussain, pesticide issues coordinator with Alberta Agriculture.

He reports that a recent article in "Newsweek" magazine lists arsenic, hydrazine and solanine as potential cancer-causing agents and safrole, caffeine and chlorogenic acid as potential mutagens. Another chemical, canavanine, has been known to cause abnormalities in the immune systems of test animals, theobromine converts non-carcinogens to carcinogens and carotene is changed in the body to vitamin A, which can cause birth defects and liver damage.

Dr. Hussain says the article indicates that the above chemicals are produced naturally in large amounts by such things as shrimps, mushrooms, potatoes, celery, carrots, black pepper, alfalfa sprouts, cocoa and coffee. It also indicates that the total dietary intake of these chemicals can be in excess of 1,000 milligrams per day, which is nearly 10,000 times higher than the dietary intake of man-made pesticides. In fact, Health and Welfare Canada results show that very few pesticides are ever found in human food and that the levels of those that are found are extremely low. According to Dr. Hussain, the total dietary intake of pesticides is about one-tenth of a milligram/per day.

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Natural Carcinogens Found In Food (cont'd)

Although the natural chemicals may cause cancer and other diseases in animal tests, Dr. Hussain says there is no evidence that they cause health problems in human beings. He points out that extremely high levels of these chemicals, and of pesticides, for that matter, are fed to animals in laboratory tests. In fact, the levels are usually from 1,000 to 100,000 times higher than the levels to which a person is exposed naturally. Because human beings are exposed to such low levels, their body's defence system is able to neutralize the chemicals before they have a chance to do any harm.

FOR IMMEDIATE RELEASE

DUAL-PURPOSE FORAGE MIXTURES

Is there a place for a dual-purpose forage mixture on the modern farm? Alberta Agriculture's supervisor of forage crops, Myron Bjorge thinks there is, especially in areas where it is normal to harvest only one cut of hay.

He believes there is a place for dual-purpose forage mixtures on many farms because the growth rate of all pastures decreases as the feed requirement of the beef herd increases due to the rapidly growing calves. Since this decrease in forage growth occurs even in pastures that have been well fertilized and that consist of well adapted forage species, it means that the pasture area must be increased as the season advances.

Mr. Bjorge says a dual-purpose forage mixture can be used for pasture only or one cutting of hay can be taken before it is pastured, and he says that both meadow brome grass and orchard grass are particularly well suited for use in dual-purpose mixtures. Meadow brome grass, which was recently introduced into Alberta, does well on dark brown, black, grey wooded and irrigated soils. In fact, its areas of adaptation in the province are similar to those of smooth brome grass.

Mr. Bjorge recommends using a mixture consisting of eight pounds per acre of meadow brome grass to one to three pounds per acre of alfalfa, and he recommends using the lower rate of alfalfa in dry areas and in areas where bloat is a serious problem. He also recommends substituting legumes like red clover and alsike clover in areas that are not suited to alfalfa production.

Orchard grass requires a fertile, well drained soil. Mr. Bjorge recommends the varieties Chinook and Kay for the irrigated areas in southern Alberta. And Kay is the only variety that is hardy enough at the present time for the black and grey wooded soil zones of

- (cont'd) -

Dual-Purpose Forage Mixtures (cont'd)

of central Alberta, but, unfortunately, seed will be difficult to obtain this year. Mr. Bjorge is afraid that farmers who try other varieties may be disappointed in their lack of longevity.

A mixture of orchard grass should contain four to five pounds per acre or orchard grass and one to three pounds per acre of alfalfa. The lower rate of alfalfa is recommended for areas where bloat is a serious problem. And, again, red clover and alsike clover can be substituted for alfalfa in areas that are not suitable for growing alfalfa. Mr. Bjorge suggests adding a pound of timothy per acre to the mixture to hedge against winterkill. And he says Champ has a slightly better rate of regrowth than other timothy varieties.

Finally, the hay from both meadow brome grass and orchard grass mixtures should be cut earlier than that from a standard forage mixture to allow enough regrowth for good pasture. And the hay from meadow brome grass and orchard grass mixtures will take longer to dry than hay made from the standard forages because of its leafiness. Although the yield is usually less than that obtained from a standard hay mixture, the quality will be higher.

May 14, 1984

FOR IMMEDIATE RELEASE

POWDERY MILDEW IN FIELD AND GARDEN PEAS

In a normal growing season, late maturing field pea varieties that are susceptible to powdery mildew should be planted in early May.

This is one of two conclusions reached by Dr. Ray Zimmer of Agriculture Canada's research station at Morden, Manitoba, as a result of his research on powdery mildew in field peas. His other conclusion is that powdery mildew-resistant pea varieties should be planted if the incidence of this disease is expected to be high. He points out that when resistant varieties are chosen, they do not need to be planted early in the season.

Dr. Zimmer set up his research test in 1982 to examine the relative disease reaction of several licensed pea cultivars and advanced breeding lines and to determine what effect date of seeding has on the disease. The three seeding dates he used in his test were May 12, May 25 and June 3. Disease reaction readings were taken 90 days after each seeding date.

Dr. Ron Howard, plant pathologist at the Alberta Horticultural Center in Brooks, says powdery mildew is a foliar disease that also attacks garden peas and that the same advice regarding planting time that applies to field peas also applies to home garden peas. An alternative for home gardeners who want to grow susceptible late-maturing pea varieties would be to dust or spray the vines with a sulphur fungicide either prior to the appearance of powdery mildew or as soon as it appears. Dr. Howard says the treatment should be repeated at weekly intervals until the peas are harvested.

Early-maturing garden pea varieties rarely require chemical protection against powdery mildew.

- 30 -

May 14, 1984

11

FOR IMMEDIATE RELEASE

A DISPLAY OF ALBERTA'S PESTS OVER THE YEARS

The Provincial Archives of Alberta is displaying posters, photographs, maps, reports and correspondence related to various pest problems, especially those connected with agriculture, in its foyer from now until July 31, 1984.

Over the years a variety of pests have presented problems in Alberta. For example, the climatic conditions that prevailed in the 1930's resulted in serious grasshopper infestations, particularly in southern Alberta. Then in the early 1950's an outbreak of rabies occurred in the north. It was so severe that all dogs north of the 55th parallel were vaccinated free of charge by the federal Department of Agriculture, and coyotes, foxes and other animals that were susceptible to rabies were poisoned to reduce their numbers.

Alberta's campaign against rats has been one of the most energetic and highly promoted campaigns of any in Canada. In the early years, a great deal of emphasis was placed upon public awareness, and posters urging people to "Kill Rats on Sight" were widely distributed. The campaign slogan was KROOA or "Keep Rats Out of Alberta" and proved so successful that Alberta became the only province in Canada that was able to proclaim itself "rat-free."

The front line against these and many other pests has generally been held by Alberta Agriculture, which has been assisted by Agriculture Canada, municipal pest control officers and others.

The display is on view to the public from 9 a.m. to 8 p.m. Monday to Friday and from 10 a.m. to 8 p.m. on Saturdays and Sundays.

- 30 -

Alberta
AGRICULTURE
Print Media Branch

FOR IMMEDIATE RELEASE

1984 FEEDERS' DAY PROGRAM

This year's University of Alberta Feeders' Day Program, which will take place at the Westerner Exposition Grounds in Red Deer on June 14 and 15, will be presented in two parts.

The first part will consist of presentations on swine and will be given in the morning (starting at 9.30 a.m.) of June 14 as part of the 1984 Alberta Pork Congress. The second part will consist of presentations on beef and dairy cattle, and a number of general topics. It will take place on June 15, starting at 9.30 a.m.

Following is a list of the topics that will be presented in the second part of the program.

- A Review of the University of Alberta's Animal Science Department —
R.T. Hardin, Professor of Biometrics and Poultry Genetics.
- Forages for Ruminants — L.P. Milligan, Professor of Animal Biochemistry.
- An Evaluation of the Reproductive Efficiency of Beef Bulls on Pasture —
Mahmoud Makarechian, Professor of Animal Genetics.
- Energy for Ruminants — B.A. Young, Professor of Animal Physiology.
- High Moisture Barley for Beef and Dairy Cattle — J.J. Kennelly, Associate
Professor of Ruminant Nutrition.
- Applications of Genetic Engineering to Animal Improvement — Keith
Salmon, Ph.D. Graduate Student.
- Farm Work Experience — Jim Townshend, Undergraduate Coordinator.

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1984 Feeders' Day Program (cont'd)

In addition to the above presentations, there will be posters on display which describe the research projects, and the researchers themselves will be on hand to discuss their projects and to answer questions. The Feeders' Day Report will also be available at Feeders' Day.

Information on any of the topics and further information on the program can be obtained from the Department of Animal Science, University of Alberta, Edmonton, Alberta, T6G 2P5 (Telephone: 432-3232).

FOR IMMEDIATE RELEASE

FORAGE EQUIPMENT FIELD DAY SLATED
FOR LAKELAND COLLEGE

The Forage Equipment Field Day that will take place at Lakeland College in Vermilion on June 13 is designed to show farmers who are interested in new forage equipment what components are available and to help them with their purchasing decisions.

There will be forage equipment displays, which will be discussed by local cooperating dealers and manufacturers, and demonstrations of forage harvesting, handling and storage equipment. The field demonstrations will include mower-conditioners, swathers, balers, loose stackers, forage harvesters and forage handling and moving equipment.

In addition to new models of current machine types, the field day will include demonstrations of a number of new machines, and the newer disc-type mower-conditioners and forage swather headers will be available for inspection. There will also be equipment for baling and bagging high moisture forage silage and high moisture grain as well as several types of large bale movers for truck mounting and for truck and tractor towing. Much of the equipment will be in operation.

The Forage Equipment Field Day at Lakeland College, which will start at 9 a.m. and include lunch, is co-sponsored by Alberta Agriculture and Lakeland College.

Further information on the program can be obtained from Mike Doggart or Brian Kennedy in Vermilion at 853-2811.

- 30 -

May 14, 1984

FOR IMMEDIATE RELEASE

LIFESAVER COURSE FOR FARMERS

Have you heard of the Lifesaver Course for Farmers?

This two and-a-half hour St. John Ambulance course is being offered to Alberta farmers under Alberta Agriculture's Farm Safety Program and is designed to ensure that those who participate know the basic first aid skills and procedures that could save a life in an emergency.

Prior to this course, there was nothing geared to a farmer's time frame that dealt with the knowledge that is required to meet emergency situations. Breathing, bleeding, poisoning and unconsciousness are the topics that will be covered in the two and-a-half hour period.

The manager of the Farm Safety Program, Solomon Kyeremanteng, says research studies have shown that the number of accidents in the work place are considerably reduced when people are trained in first aid skills because they then know what injuries can result from specific situations and are more careful to avoid them.

There is no charge for the Lifesaver Course and it will be offered anywhere in the province if it is requested by a group of 15 to 20 farmers.

Further details on the course can be obtained from Solomon Kyeremanteng, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-2186).

- 30 -

May 14, 1984

FOR IMMEDIATE RELEASE

STRAWBERRY ABNORMALITIES

Every year the Alberta Horticultural Research Center in Brooks receives numerous enquiries from home gardeners who want to know why their strawberries are misshapen.

According to Dr. Ronald Howard, plant pathologist at the center, these abnormalities are caused by factors that influence the pollination and the development of the small seeds that are located on the surface of the berries. They include incomplete pollination, high temperatures and drying winds during the blossoming season, frost injury and anything else that prevents the small seeds from developing.

Dr. Howard says that nearly all the strawberry varieties that are recommended for growing in Alberta are self-pollinating and that the blossoms are either pollinated with their own pollen or with pollen from the flowers of other strawberry varieties. In most cases, the blossoms produce plenty of pollen for their own use, but sometimes the first blossoms in the spring lack functional stamens (the part of the flower that produces the pollen) and pollination is not complete.

Since it is the seeds on the surface of the berries that cause them to swell, their size and shape is greatly influenced by the number of seeds that develop. If a group of these seeds on one area of the berry fails to develop, because of incomplete pollination, for example, that part of the strawberry will not swell properly and the result will be a misshapen strawberry. This condition is often referred to as "catface".

- 30 -

May 14, 1984

FOR IMMEDIATE RELEASE

TEN YEARS OLD AND STILL GROWING!

Alberta Agriculture's Farmers' Market Program is 10 years old this year and still growing! This summer there will be more than 100 markets selling high quality local produce from Pincher Creek in the south to Manning in the north.

Each market is slightly different from the other and each even varies from one market day to another, but all specialize in delicious home-grown vegetables. In addition to vegetables and fruit, there are usually such things as fresh eggs, honey, top quality baked goods, house plants and local crafts.

So while you are on holidays this summer, watch for "Sunny", the girl with the hat, the hoe and the basket of vegetables. She is Alberta's symbol for farmers' markets, and when you see her, you know there is a farmers' market close by. And remember, a farmers' market is an ideal place to find out about the community you are visiting and that you will usually find someone there who will be happy to chat and exchange news over a cup of coffee.

Debbie Brekke, district home economist at Airdrie, says if you have never visited a farmer's market before, you have a real treat in store — you will be amazed at the variety and the high quality of the products on display and you will be delighted with the helpful, friendly atmosphere.

The free Farmers' Market Calendar, containing the dates and locations of the various markets, features a delicious recipe each month. It is full of useful gardening tips, and is available from Alberta Agriculture's district offices.

- 30 -

May 14, 1984

18

FOR IMMEDIATE RELEASE

LAUNDERING PESTICIDE-CONTAMINATED CLOTHING

Special care must be taken when handling and washing pesticide-contaminated clothes to protect both the person doing the handling and washing and the person who will be wearing them again.

Bertha Eggertson, Alberta Agriculture's provincial clothing and textile specialist, points out that the chemicals may stay in the clothes, and be absorbed by the wearer's skin, if they are not properly laundered.

She recommends the following washing procedure.

- Wear rubber gloves when handling pesticide contaminated clothing.
- Discard any items that have been saturated with a full-strength chemical concentrate.
- Store contaminated clothes in a disposable plastic garbage bag until they are washed.
- Wash the clothes after spraying has been completed for the day.
- Wash them separately from other clothing.
- Do not overcrowd the washing machine.
- Pre-rinse contaminated clothing by using the pre-soak cycle on an automatic washing machine.
- Use the hot water setting.
- Use the full water level.
- Use a normal cycle.
- Use a heavy duty detergent.
- Repeat the wash two or three times if the clothes are badly contaminated.

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Laundrying Pesticide-Contaminated Clothing (cont'd)

- Dry the clothes on a line to avoid the possibility of contaminating the dryer.
- Rinse the washing machine when the wash is finished by running hot water and a detergent through its full cycle.

The above information plus information on the type of protective clothing that should be worn when using pesticides and the type of protection that is recommended for the face is contained in a publication entitled "Protective Clothing For Use With Pesticides" (Homedex 1353-90). It can be obtained from district home economists or by writing to the Publications Office, Alberta Agriculture, 7000-113 Street, Edmonton, Alberta, T6H 5T6.

May 14, 1984

FOR IMMEDIATE RELEASE

SECRETARY MANAGER OF ALBERTA DAIRY
CONTROL BOARD APPOINTED

Mike Dordevic, chairman of the Alberta Dairy Control Board, has announced the appointment of Lloyd Johnston to the position of secretary-manager of the Alberta Dairy Control Board.

Mr. Johnston, who has had considerable experience in the dairy industry, holds a bachelor of science degree in agriculture (dairy and food science) from the University of Saskatchewan and a masters degree in business administration from the University of Calgary.

Following a period of time spent in Ontario and Quebec with an agricultural chemical firm, he accepted a position with Alberta Agriculture as a dairy specialist in the Peace River area. He spent 10 years as a regional dairy specialist in Fairview and Calgary. And in May of 1982 he was appointed head of the dairy farm inspection branch of the dairy division where he guided the Milk Grade and Price Program through its first two years.

In his new position as secretary-manager of the Alberta Dairy Control Board, Mr. Johnston will be responsible for implementing the policies and decisions of the board, which are designed to achieve and maintain a strong and stable dairy industry in Alberta. While working with the board chairman, he will be in close contact with producers and processors. And he will also serve on provincial and national committees responsible for the development of provincial and national dairy policies.

- 30 -

APR 21 1984

May 21, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Processed Alfalfa Outlook.....	1
Sheep Outlook	3
"Accordion" Leaf Symptoms In Spring Wheat	4
Beware Of Additives	6
The Effect Of Three Growth Implants On Yearling Steer Pasture Gains	7
Mobile Livestock Slaughterers.....	8
The Use Of Plastic Mulches And Tunnels In A Home Garden	10
High Capacity Water Pumps Evaluated	13
Canadian Livestock Air Cargo Forum	14
4-H Premier's Award Winner Announced	15
Standard Protective Clothing For Pesticide Users	16

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AGRICULTURE
Print Media Branch

May 21, 1984

1

FOR IMMEDIATE RELEASE

PROCESSED ALFALFA OUTLOOK

Current prospects for the 1984-85 Canadian processed alfalfa crop year are generally favorable, but prices are not expected to match those of the 1983-84 crop year. However, the need in the United States to replenish depleted stocks will provide some price stability.

According to Alberta Agriculture's special commodities analyst, Fred Boyce, an excellent export demand and very good prices during the current crop year have been a boon to the industry, and virtually all stocks on hand at the processing plants have been committed. He says carryover supplies will be negligible going into the new crop year, which begins on June 1, 1984.

Mr. Boyce also says the 1984 acreage of alfalfa grown for processing is expected to remain unchanged to slightly higher than it was last year in nearly all the provinces, and that, with reasonable yields, production in 1984 should be similar to that of 1983.

Canadian processed alfalfa production in the 1983-84 crop year is estimated at 395,000 tonnes, up by 36 per cent from the previous crop year. And Alberta and Saskatchewan reported yield increases of nearly 70 per cent and 33 per cent, respectively, mainly as a result of good yields. According to Mr. Boyce, the increased production has moved very well into both domestic and export channels. Local usage has been relatively stable, but exports of alfalfa pellets and cubes are expected to reach record levels. The demand for alfalfa products from the Pacific Rim countries is expected to increase and Canadian products are expected to maintain or increase their share of this market.

In the United States supplies of all forage, including alfalfa products, have been drawn down to minimal levels, and carryover stocks will be very small. In fact, production

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Processed Alfalfa Outlook (cont'd)

increases will be needed to rebuild them. U.S. prices are expected to be attractive at least until stocks reach a more burdensome level, and the shortage of hay in many areas may limit the amount of alfalfa that is available for processing early in the season. However, 1984 yields are expected to be much better than they were last year when drought affected much of the American crop, especially in Nebraska and Kansas, the key alfalfa-producing states.

The above article is based on information that was available in April, 1984.

May 21, 1984

FOR IMMEDIATE RELEASE

SHEEP OUTLOOK

Although Alberta lamb prices are expected to retreat after May, they are not expected to fall below the \$58 to \$60 per hundredweight range during their lowest period in August-September.

Both Canadian and American inventory reports suggest that the aggregate potential supply of lamb will be lower this year than it was in 1983 and that demand will remain unchanged or be stronger. Alberta Agriculture's livestock analyst, Gordon Herrington, says apart from these two factors, the generalized pricing pattern of the previous two years is expected to prevail again this year.

Last year locally produced fresh lamb and mutton supplies were supplemented by processed lamb and mutton from the United States, New Zealand and Australia with New Zealand being the main supplier of lamb. However, these imports were down considerably during the first three months of this year.

The above article is based on information that was available in April, 1984.

- 30 -

FOR IMMEDIATE RELEASE

"ACCORDION" LEAF SYMPTOMS IN SPRING WHEAT

Some farmers in south-central Alberta experienced a problem with their spring wheat last year. It manifested itself as the failure of wheat seedlings to emerge, or if they did emerge, their leaves were yellow and spindly.

Dr. Ronald Howard, plant pathologist at the Alberta Horticultural Research Center in Brooks, reports that samples of plants suffering from this disorder were received at the center's laboratory early in the season, and that a similar disorder was experienced in several areas of Saskatchewan.

In the following excerpt from an article carried in the "Saskatchewan Crop Protection Newsletter," Dr. Andrew Frowd, provincial plant pathology specialist, describes the disease and its symptoms.

"From several parts of the province, reports have been received of cereal seedlings in which the second leaf is folded in a zig-zag accordion-like manner, with up to 4 or 5 folds, and its tip is retained by the first leaf. Aside from frequent suggestions of herbicide damage or soil compaction as possible causes, this appears to be a peculiar physiological condition. However, each case must necessarily be considered on its merits.

"The typical sequence of events associated with the accordion-like leaf is as follows: at seeding, the seed has been placed in cool, moist soil at a greater-than-normal depth. Germination conditions have been unfavorable, and the hypocotyl has emerged slowly and then elongated slowly. At this developmental stage, the first leaf has appeared above the soil level. At this moment, the weather turns extremely favorable to plant development, and high temperatures prevail. Elongation of the first leaf is not yet complete, when

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"Accordion" Leaf Symptoms In Spring Wheat (cont'd)

the second leaf begins to actively elongate. This occurs while the whole plant system is still positioned low in the soil and the second leaf may encounter soil particles which obstruct its normal development. Also the plant's physiological regulatory system determines that a sufficient length of time has elapsed from initial germination to program further leaf initiation, regardless of environmental conditions."

Dr. Howard says the above description appears to fit the situation in Alberta and that only time will tell whether the fields where the disorder is widespread will sustain significantly lower yields than fields which do not have it.

May 21, 1984

FOR IMMEDIATE RELEASE

BEWARE OF ADDITIVES

Never add anything to a spray mixture unless it is recommended on the herbicide label.

This advice comes from Alberta Agriculture's supervisor of communications and special projects with the weed control section, Arnold Stearman. He reports that Alberta farmers are being led to believe, through clever wording and testimonials, that they may be able to considerably reduce the rate of herbicide they apply to their crops by using an additive. Because they are anxious to reduce their input costs, many of these farmers have purchased the additives without knowing the possible implications of adding them to their herbicide mixtures.

Mr. Stearman stresses that a farmer who uses an additive when it is not recommended could suffer serious consequences. For example:

- The additive could cause crop injury by affecting the action of the herbicide.
- The additive could react with the herbicide in such a way that the herbicide does not kill any weeds.
- The additive could react with the herbicide in such a way as to cause an unacceptable residue in the crop, which, if noted, could mean the removal of the entire crop from the market. In such cases the farmer would receive no compensation for his loss.
- The manufacturer's guarantee will be void if the user of its products deviates in any way from the label directions.

According to Mr. Stearman, experiments on the effects that additives have on the action of herbicides are presently underway. When definite results have been obtained, the appropriate instructions will be included on the product labels. In the meantime, farmers who experiment with additives should realize that they are putting their crops at risk, Mr. Stearman says.

May 21, 1984

FOR IMMEDIATE RELEASE

THE EFFECT OF THREE GROWTH IMPLANTS ON
YEARLING STEER PASTURE GAINS

Growth implants increase gains and net returns in yearling steers on pasture by a considerable amount compared with the gains and net returns from unimplanted cattle.

The performance of a single implant of Ralgro and a single implant of Synovex-S was evaluated in grazing trials involving 383 crossbred yearling steers in 1981 and 1982 and the performance of a single implant of Ralgro, Synovex-S and Compudose was evaluated in grazing trials involving 260 crossbred yearling steers on pasture in 1983.

The three trials were carried out on the same cooperating farm under Alberta Agriculture's Farming for the Future On-Farm Demonstration Program. The 1981 trial ran for 204 days, the 1982 trial ran for 186 days and the 1983 trial ran for 155 days.

In 1981 and 1982 Ralgro increased gains by 10.1 per cent and net returns per steer by \$15.05, while Synovex-S increased gains by 15.1 per cent and net returns per steer by \$23.82.

In the 1983 trial Ralgro increased gains by 7.7 per cent, Synovex-S by 9 per cent and Compudose by 10.2 per cent. And Ralgro increased net returns per steer by \$11.45 compared with \$13.74 for Synovex-S and \$14.75 for Compudose.

It has been suggested that because of the relatively short effective life of Ralgro and Synovex-S, gains could be increased by reimplanting the animals every 100 days. However, such a practice would add to production costs, is inconvenient and is not legal in Canada at the present time.

Further information on the trials can be obtained from Dwight Karren, Regional Livestock Supervisor, Alberta Agriculture, Red Deer, Alberta, T4N 6K8 (Telephone: 340-5336).

FOR IMMEDIATE RELEASE

MOBILE LIVESTOCK SLAUGHTERERS

Farmers who employ a mobile slaughterer to kill an animal for home consumption should ask themselves whether the convenience is worth the risk of jeopardizing the quality and safety of the meat.

In the opinion of the head of Alberta Agriculture's meat inspection branch, Dr. George Summers, the answer is definitely no! He points out that because mobile slaughterers do not operate from a licensed abattoir, they do not come under the provincial Meat Inspection Act, which ensures that only healthy animals are slaughtered for human consumption and that the slaughtering is done on approved premises and under approved sanitary conditions. And since they do not come under the Meat Inspection Act, mobile slaughterers are actually operating illegally even though their fees are similar to those charged by an abattoir. They can be fined up to \$500 for a first offence and up to \$2,000 for a second offence.

The following are the reasons Dr. Summers feels that the quality and safety of the meat from animals slaughtered by a mobile slaughterer could be in jeopardy.

- There is no assurance that the animal is fit for human consumption.
- A mobile slaughterer makes a minimum investment in equipment and facilities. This practice obviously makes him mobile, but it also means that he does not have adequate refrigeration facilities or an adequate supply of portable hot water.
- The dirt that clings to a carcass after an animal has been slaughtered is not cleaned off immediately, as would be the case in an abattoir. It remains on the carcass, contaminating it, until the meat is further processed.
- The meat can be exposed to a variety of temperatures, depending upon the weather. Cold winter temperatures are beneficial, but spoilage, disease organisms and expo-

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Mobile Livestock Slaughterers (cont'd)

sure to flies pose risks to the safety and quality of the meat and meat products when the temperature rises above that in a refrigerator.

Another disadvantage of using a mobile slaughterer, as opposed to an abattoir, is that of disposing of the offal, feet, head, etc of the slaughtered animal, especially in the summer. When left at the site of the slaughter, they may attract predators which may then stay around and kill livestock. And insects, such as blow flies, will also be attracted.

Hence, it is in a farmer's best interest to have an abattoir slaughter his animals, Dr. Summers says. Not only is the safety and quality of the meat ensured, but the carcass can be processed to meet the individual's specific requirements. If he requires particular cuts for ethnic dishes or if he wants to have sausages made, the abattoir will do this for him.

A list of licensed abattoirs in each area of the province can be obtained from Dr. Summers in Edmonton at 436-9340 or from the regional supervisor in each area. They are:

Mel Willis, Lethbridge	—	329-5179
Owen Munchrath, Airdrie	—	948-6868
Barry Stevens, Stettler	—	742-4481
Ken Pratt, Vermilion	—	853-2811
Del Banack, Grande Prairie	—	538-5275

FOR IMMEDIATE RELEASE

THE USE OF PLASTIC MULCHES AND TUNNELS IN A HOME GARDEN

Do you ever use a plastic mulch or a plastic tunnel in your garden to get earlier and higher yielding vegetables?

Lloyd Hausher, market garden specialist at the Alberta Horticultural Research Center in Brooks, has been testing crops grown under plastic mulches and tunnels at Brooks since 1976, and more recently, in the Edmonton and Peace River regions. He says that present indications show that the vine crops, mainly cucumbers, squash, pumpkins and melons, benefit the most from these devices. However, peppers have also done very well. In fact, almost any vegetables can be grown under a plastic mulch or tunnel in a home garden, except tomatoes. They develop a great deal of foliage which delays and reduces this production of fruit.

Mr. Hausher reports that experiments carried out at Brooks and in the Edmonton and the Peace River regions during the past five years have shown that under mulches and tunnels the yields and earliness of cucumbers, melons and peppers can be increased as shown in the following table.

<u>Recommended Crops Tested</u>	<u>Possible Yield Increase</u>	<u>Possible Earliness Increase</u>
pickling cucumbers	2 - 3 times	7 - 12 days
slicing cucumbers	3 - 4 times	10 - 20 days
peppers	2 - 4 times	5 - 7 days
muskmelons (southern Alberta)	1.5 - 2 times	7 - 15 days
watermelon (southern Alberta)	2 - 2.5 times	7 - 15 days

- (cont'd) -

The Use Of Plastic Mulches And Tunnels In A Home Garden (cont'd)

Although clear plastic is superior to black plastic from the point of view of heating the soil, it also increases weed growth. For this reason black plastic is more practical for mulches in a home garden where the weeds cannot be controlled with herbicides. Both the black and the clear plastic increase plant growth by increasing the soil temperature and improving its moisture uniformity.

Mr. Hausher recommends using four-foot widths of 2 mil black plastic for a mulch in a home garden and 2 mil six-foot widths of clear perforated plastic for a tunnel. Plastic that is used for tunnels must be perforated to allow an air exchange.

Here is how Mr. Hausher recommends laying a plastic mulch. Rake and level the soil in an area equivalent to the width and length of plastic that will be used. Lay the plastic down and make a three to four inch wide and deep furrow along the sides and ends of the plastic with a hoe. Place the edges of the plastic in the furrow, and, after making sure the plastic is flat on the soil surface, cover the sides and then the ends of the plastic with soil. Next cut two to three inch crosses with a knife in the centre of the plastic at the desired intervals, and plant the seeds or transplants by placing your fingers through the cuts and firming the seeds or transplants into the soil. Watering them in is recommended, but, in the case of seeds, care must be taken not to wash them away from the holes in the plastic.

If a plastic tunnel is to be used, it should be constructed after seeding or transplanting has been done. And it should be put over transplants the same day that they put into the garden. Begin by driving a wooden stake into the ground at each end of the length of plastic that is to be used. Next push sections of galvanized wire, which has been cut into six foot lengths, and formed into arcs or hoops, into the soil on each side of the plastic to a depth of five or six inches. The hoops closest to the stakes at each end should be made of two thicknesses of wire because they will be supporting most of the pressure from the tunnel.

The Use Of Plastic Mulches And Tunnels In A Home Garden (cont'd)

On a windless day, place clear 2 mil plastic over the hoops, making sure that its width is the same as the length of the wires used for the hoops. Now tie the ends of the plastic to the wooden stakes and anchor the edges of it firmly by covering them with soil. If they are not properly anchored the wind will get under them and blow the tunnel away. To ventilate the tunnel burn a small hole in the plastic covering with a low flame propane torch at eight to 12-inch intervals. Do not cut the holes with a knife because the wind will tear the plastic.

The sides of the tunnel can be pulled up from the ground during the day and pinned to the hoops with clothes pins to allow bees to enter the tunnel and pollinate the flowers of vine crops. At night the sides of the tunnel should be let down again and secured in the soil. A plastic tunnel is usually completely removed when the vines fill the tunnel or about a week after the plants begin to bloom.

May 21, 1984

FOR IMMEDIATE RELEASE

HIGH CAPACITY WATER PUMPS EVALUATED

Reports are now available from the Prairie Agricultural Machinery Institute (PAMI) on three high capacity water pumps that were tested at its Lethbridge station last year.

The pumps were 8, 12 and 16-inch diameter Lloyd's High Life Pumps, which have maximum pumping capacities of 1,850, 4,400 and 7,300 gallons per minute, respectively. They are all driven by a tractor power take-off and their power requirements are 41 horsepower for the 8-inch pump, 96 horsepower for the 12-inch and 232 horsepower for the 16-inch pump. The pumps have a reaching length of about 30 feet, and their potential uses include draining sloughs, filling dugouts and possible flood irrigation.

The PAMI test reports include information on flow rates at various heads, power requirements, pumping efficiency, ease of operation, operator safety, servicing and transportation.

A Lloyd's model RE-40 Submersible Sludge Pump was also tested by PAMI. It is hydraulically operated and was evaluated for its performance when pumping both water and liquid manure.

The reports and information on the pumps and other farm machinery can be obtained in Alberta from the Prairie Agricultural Machinery Institute, C/o LCC Campus, Lethbridge, Alberta, T1K 1L6 (Telephone: 329-1212).

- 30 -

May 21, 1984

FOR IMMEDIATE RELEASE

CANADIAN LIVESTOCK AIR CARGO FORUM

Agriculture Canada will hold the second Canadian Livestock Air Cargo Forum on June 12, 1984 at the Constellation Hotel in Toronto, Ontario.

The first forum, which was held in May, 1983, received an excellent reception. And it is because of the continuing interest on the part of the participants in that first forum, and other similar events (shipper-carrier day seminars) that the 1984 forum has been designed to facilitate discussions among livestock exporters, air carriers, government officials and related support industries. "Its main purpose", says Alberta Agriculture's transportation economist, Nabi Chaudhary, will be to bring sectors of the livestock shipping industry together to discuss and identify the strengths and problem areas of that industry.

The main topics that will be discussed are: trends in world livestock markets; major issues facing the Canadian livestock industry; transportation systems for shipping livestock; assistance to livestock shippers; and transportation alternatives from the Canadian and foreign air carriers perspectives.

Registration details and further information on the Canadian Livestock Air Cargo Forum can be obtained from: Hank Blommers, Food Processing and Distribution Division, Marketing and Economics Branch, Agriculture Canada, Ottawa, Ontario, K1A 0C5 (Telephone: (613) 995-5880).

- 30 -

May 21, 1984

FOR IMMEDIATE RELEASE

4-H PREMIER'S AWARD WINNER ANNOUNCED

Doug Sawyer of Pine Lake, near Red Deer, has won Alberta's coveted 1984 Premier's Award Trophy. It will be presented to him by Premier Lougheed at a ceremony that will be held later this spring on the Legislative Grounds.

Mr. Sawyer has been a member of the Red Deer 4-H Horse Club for seven years and was one of 11 candidates who were chosen to compete for this top honor from among 138 delegates who attended the provincial 4-H Selections in Olds. As winner he was entitled to choose a travel or educational award out of the 60 that are available. His choice was the Montana 4-H State Congress, which will be held in Bozeman, Montana in July.

The Premier's Award is designed to recognize 4-H and community involvement and communications and leadership skills. However, the recipient must also be knowledgeable about 4-H programs and current affairs. The 1984 award marks the 20th anniversary of its presentation.

As this year's Premier's Award winner, Mr. Sawyer's responsibilities will include attending a number of 4-H member and leadership programs throughout the province during the next 12 months.

The Premier's Award is administered by the 4-H branch and the program is jointly sponsored by Alberta Agriculture, Agriculture Canada, the United Grain Growers and the Alberta Wheat Pool.

- 30 -

FOR IMMEDIATE RELEASE

STANDARD PROTECTIVE CLOTHING FOR PESTICIDE USERS

Everyone who handles pesticides should read the label on the container very carefully, and they should wear the standard protective clothing to avoid potential health hazards, says Alberta Agriculture's provincial clothing and textile specialist, Bertha Eggertson.

Pesticides include herbicides, insecticides and fungicides, and the standard protective clothing that is recommended is:

- A long-sleeved shirt
- Full-length pants
- Overalls
- Unlined neoprene or rubber gloves
- High rubber boots
- A wide-brimmed hat

Ms. Eggertson explains that cloth or leather gloves, leather shoes or sneakers and a baseball cap should never be substituted for the standard protective clothing listed above because they absorb chemicals. And this means they will expose the wearer to the chemicals.

In some cases, goggles and a respirator are recommended for people handling pesticides. Goggles, or a face shield, protect the eyes and the face against pesticide vapors, dust and splashes, while a respirator will prevent the inhalation of dust, powders and sprays.

A respirator covers the nose and mouth and contains a charcoal cartridge as well as a filter pad to filter out dust and spray particles. Ms. Eggertson points out that the risk of a health hazard from using pesticides will be greatly reduced if the respirator cartridge is changed after eight hours of use or when the wearer detects a chemical odor.

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- 2 -

Standard Protective Clothing For Pesticide Users (cont'd)

She advises anybody who has handled pesticides to shower and change clothes when the operation is over.

The above information, plus information on laundering pesticide-contaminated clothing, is contained in a publication entitled "Protective Clothing for Use with Pesticides" (Homedex 1353-90). It can be obtained from district home economists or by writing to the Publications Office, Alberta Agriculture, J.G. O'Donoghue Building, 7000-113 Street, Edmonton Alberta, T6H 5T6.

- 30 -

May 28, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

The Effect Of Time Of Castration And Growth Implants On Suckling Calves. . . .	1
The Wheat Midge Status In Western Canada	3
Leaf Roll Of Potatoes	5
Soil Persistence Of Poast	7
Fan Evaluation Reports Available	8
Avoiding Problems In Young Chickens And Turkeys	9
Livestock And Poisonous Plants	11
4-H'ers Attend Indiana Conference	13
Meat Inspection — Consumer Protection	14
District Agriculturist Appointed To High River	16

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Alberta
AGRICULTURE
Print Media Branch

May 28, 1984

FOR IMMEDIATE RELEASE

THE EFFECT OF TIME OF CASTRATION AND GROWTH IMPLANTS ON SUCKLING CALVES

As the use of growth implants on suckling calves has become a recognized method of increasing gains, many cattlemen are starting to question the practice of castrating their male calves in the fall to take advantage of the higher gains from bull calves.

The results of two trials, involving the same two cooperating farmers, that were carried out in 1982 and 1983 under Alberta Agriculture's Farming for the Future On-Farm Demonstration Program showed that there was no difference in the growth performance of calves that were castrated and implanted in the spring and calves that were implanted in the spring and castrated in the fall, providing that the latter were given sufficient time to overcome the effects of castration before they were evaluated. The trials also showed that implanting calves increased their rate of gain and net returns and reduced the testicle weights of bull calves.

Trial 1 involved 234 suckling calves and was designed to examine the effect of time of castration, the effect of Ralgro on testicle weights in the bull calves and its effect on overall calf gains.

It was found that male calves gained faster than heifer calves and that spring and fall castrates had similar gains. The Ralgro implants increased the gains of the bull calves by 6 per cent and the response was similar for the spring and fall castrates and the heifers. It was also found that the Ralgro implants reduced testicle weights in the bull calves by 45 per cent, and that the implants increased net returns for the four categories of calves by \$8.28 per head.

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The Effect Of Time Of Castration And Growth Implants On Suckling Calves (cont'd)

Trial 2 involved 171 suckling calves and was designed to examine the effect of Ralgro and Synovex-S on heifer and bull calf gains and on bull calf testicle weights. It was found that the bull calves gained 5.8 per cent faster than the heifer calves and that the implants increased average gains by approximately 5 per cent in both the heifer and the bull calves. The trial also showed that there was no real difference in the performance of the Ralgro and Synovex-S implants, and that the heifer and bull calves responded in a similar way to both products. However, the Ralgro implants were found to increase net returns by \$11.26 per head, while Synovex-S increased them by \$20.80 per head. The Ralgro implants reduced testicle weights in the bull calves by 66 per cent compared with 77 per cent for Synovex-S³

Further information on these trials can be obtained from Dwight Karren, Regional Livestock Supervisor, Alberta Agriculture, Red Deer, Alberta, T4N 6K8 (Telephone: 340-5336).

May 28, 1984

3

FOR IMMEDIATE RELEASE

THE WHEAT MIDGE STATUS IN WESTERN CANADA

Although the wheat midge has not yet caused any problems for Alberta wheat growers, it has caused serious problem over the last two years in northeastern Saskatchewan.

Surveys carried out last year showed that in the "hot spot" areas of Arborfield, Carrot River and Aylsham 160,000 acres of wheat crops were severely infested with this pest, and that 50 per cent or more of the wheat kernels had been affected. In fact, yields in some fields were reported to have been as low as five bushels per acre, and losses in excess of \$5 million have been quoted by some experts.

The adult wheat midge looks like its distant cousin, the mosquito, but is about one third the size of a mosquito. Its color is a brownish-orange. The adult midges emerge from late June to the middle of July and mate, after which the females deposit their eggs in susceptible wheat heads, most frequently along the edges of the wheat fields.

Egg laying sites are selected when the wheat heads are in the milk and early dough stages. The female midge prefers to lay her eggs on the under edge of the glume or in the grooves or spikelets. The eggs, which are barely visible to the naked eye, are laid singly and in clusters, and one female will normally lay 30 to 40 eggs. However, under ideal conditions she can lay as many as 100 eggs.

Depending upon the temperature, the larvae emerge and start to feed on the immature wheat kernels when the larvae are from five to 10 days old. At this stage they are milky white, but they gradually change to an orange-red color, and they cannot be detected except by breaking the wheat head apart. It is during this stage, which lasts from two to three weeks, that the wheat midge does its damage. After this it spins a cocoon in the soil to protect it during the winter. The cocoon is about the size of a canola seed, and it is believed that the wheat midge can remain in its cocoon for up to 18 years.

- (cont'd) -

The Wheat Midge Status In Western Canada (cont'd)

Three factors appear to be critical for breaking this dormancy. One is the soil temperature, which should not exceed 10 ° C for 120 days. The second is the soil moisture level, which should be high, and the third is the weather, which should be warm to promote the emergence of the adults.

The dependence of the wheat midge on rainfall suggests that it should not be a problem in the more arid, traditional wheat belt area, but this theory has not yet been established. Expansion of the problem beyond the "hot spot" areas is very likely, according to the experts. In fact, the Canada Grain Commission has identified wheat midge damaged in wheat kernels that came from the Swan River Valley area in Manitoba and from an area just south of Calgary in Alberta.

For this reason, the head of Alberta Agriculture's entomology section, Michael Dolinski, is urging farmers to be on the look out for the wheat midge this summer. He points out that the wheat in infected fields appears to have normal, healthy heads at harvesting time, but that the heads yield little or no grain. And the grain that is harvested is often shrunken or shrivelled to the point where it is not marketable.

Mr. Dolinski also says that in the absence of wheat, the wheat midge has been found in barley, rye and oat crops as well as in several forage grasses and some weed species. However, to date, damage in these other crops has not been serious.

In an attempt to control the wheat midge, scientists in Saskatoon are trying to understand its life cycle under Western Canadian conditions, and to investigate ways of breaking its over-wintering dormancy. They are also trying to find out whether the midge has any natural enemies, which could be used in a biological control program, and they are investigating insecticides that might provide control. They also plan to monitor the wheat midge in Saskatchewan to determine its economic threshold.

May 28, 1984

FOR IMMEDIATE RELEASE

LEAF ROLL OF POTATOES

Leaf roll is a common disease of both commercial and home garden potatoes in Alberta.

According to Dr. Ron Howard, plant pathologist at the Alberta Horticultural Research Center in Brooks, there is a virus and a nonvirus type of leaf roll. The virus type is caused by the Potato Leaf Roll Virus, and its symptoms vary depending upon the stage of infection. Plants grown from potatoes that came from infected stock will be stunted, pale green in color and have stiff leaves that roll upwards. Such plants are a potential reservoir of infection, which can be spread to healthy plants by aphids during the growing season.

Dr. Howard says that potato plants that start out healthy, but become infected early in the growing season may show a slight rolling upwards of the new leaves on the tips of the shoots. Later the base of the rolled leaves may turn a yellowish or reddish color, and these symptoms may progress down the plants as the vine matures. Plants that do not become infected until late in the growing season may not show any symptoms.

However, tubers from some potato varieties that became infected during the growing season will develop net necrosis. It causes brown strands to appear in the tuber, and it usually causes more damage to the stem-end half of the potato. The severity of net necrosis will depend upon the variety of potato, the stage at which it became infected, the length of the storage period and the temperature of the storage area.

Dr. Howard says that all potatoes grown in Alberta are susceptible to virus leaf roll and that Netted Gems are particularly susceptible to net necrosis. Although Kennebec, Red Pontiac, Norland, Norchip and Warba are susceptible to leaf roll, they do not develop net necrosis.

- (cont'd) -

Leaf Roll Of Potatoes (cont'd)

The nonvirus type of leaf roll has several unrelated causes. One is the impaired movement of carbohydrates from leaves to the stems. It causes starch to accumulate in the leaves which then become leathery and roll upwards. Rhizoctonia or fusarium wilt, mycoplasma organism injury and mechanical injury may also cause the leaves to roll upwards, which may or may not be accompanied by the vines turning yellow or red.

Dr. Howard says leaf roll may also be genetic. In this case a recessive mutant gene causes the starch to accumulate in the leaves. And certain soil nutrient conditions, such as a nitrogen toxicity, can cause leaf roll symptoms. When leaf roll is caused by a soil nutrient condition, it is usually uniform on all the plants. This is different to the virus leaf roll where the severity of the symptoms will vary considerably from one plant to another.

Virus leaf roll can best be controlled by planting disease-free seed and by controlling aphids. Nonvirus leaf roll can be prevented by using good quality seed potatoes and by following recommended cultural practices.

May 28, 1984

FOR IMMEDIATE RELEASE

SOIL PERSISTENCE OF POAST

There is unlikely to be any residue carryover into the next crop year following spring treatments with the recently registered post-emergence herbicide, Poast.

Poast is registered to control wild oats, green and yellow foxtail, volunteer cereals, barnyard grass, proso millet, witchgrass, Persian dandel, etc. in canola, flax, soybean and sugarbeet crops.

According to Rudy Esau, weed control specialist at the Alberta Horticultural Research Center in Brooks, studies carried out during the past three years at Agriculture Canada's research station in Regina, Saskatchewan, have revealed no residues the following September from May applications of Poast in clay loam, heavy clay or sandy loam fields at depths of 0-5 or 5-10 cm.

The studies also showed that Poast undergoes a fairly rapid breakdown in moist soils, but that little loss occurs over a period of several weeks in dry soils. The studies were carried out under both laboratory and field conditions.

- 30 -

May 28, 1984

8

FOR IMMEDIATE RELEASE

FAN EVALUATION REPORTS AVAILABLE

The Prairie Agricultural Machinery Institute (PAMI) has just released performance testing reports on five grain aeration fans and five livestock building ventilation fans.

PAMI undertook the grain aeration and livestock building fan evaluations in response to the high demand for fan performance information from Prairie farmers. The evaluations are designed to help farmers in the selection and use of fan equipment in their operations.

The reports include information on efficiency, input power requirements, output power over a range of static pressures, maintenance, safety, prices, retail market outlets and detailed fan specifications. The testing criteria and standards used in the PAMI tests are all consistent with fan tests carried out by other recognized agencies. And they are designed to provide information in such a way that a farmer can choose a fan on the basis of his specific needs and be assured of its performance.

In some cases the PAMI tests have shown as much as a 20 per cent difference in air flow rates when the results were compared with the manufacturer's specifications. Of course such information can be vital for the proper planning of either an aeration or a ventilation system.

The grain aeration and livestock building ventilation reports and reports on other farm machinery can be obtained in Alberta from the Prairie Agricultural Machinery Institute, C/o LCC Campus, Lethbridge, Alberta, T1K 1L6 (Telephone: 329-1212).

May 28, 1984

FOR IMMEDIATE RELEASE

AVOIDING PROBLEMS IN YOUNG CHICKENS AND TURKEYS

Every spring Alberta Agriculture's poultry branch offices and veterinary diagnostic laboratories receive numerous telephone calls from small turkey and chicken flock owners who are having problems of one kind or another.

According to poultry specialist, Rod Chernos, in the majority of cases the problems are related to an incomplete understanding of the nutritional requirements of that specific species of birds. He says it is not uncommon for somebody who has both young broilers and turkeys to decide to use the cheaper broiler feed for both the broilers and the turkeys, with disastrous results to the latter. Young turkey poults require a 28 per cent protein, and will, undoubtedly, develop severe leg problems and a host of other nutritional diseases if they are fed a 23 per cent protein broiler ration.

Mr. Chernos recommends feeding broiler chicks a commercial broiler starter until they are three to four weeks old. After that they can be put on to a home mixed feed unless the owner wants to get them ready for slaughter in the shortest possible time. If this is the case, he will have to use a commercial feed all the way along and keep the birds confined.

Leg weakness is the condition that develops most frequently when farmers feed only grain. It can be kept to a minimum, according to Mr. Chernos, by feeding a chick grower supplement with the grain. Then 10 to 14 days before the birds are to be slaughtered, switch to a finisher supplement. It will put a nice finish on the birds, Mr. Chernos says.

The same feeding program as mentioned above can be used for turkey poults except that the owner must be sure to use a turkey starter and turkey supplement instead of a broiler starter and a broiler supplement.

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- 2 -

Avoiding Problems In Young Chickens And Turkeys (cont'd)

Mr. Chernos also stresses that pullets should never be fed a broiler ration because they will become too fat to lay properly. And pullets that are too fat when they start laying are prone to prolapse and to cannibalism. There are specially formulated feeds for pullets that can be obtained from most feed mills.

Anyone in doubt about the feeding program to follow should contact the local feed mill or local poultry specialist. If he has suffered abnormally high losses, he should contact one of Alberta Agriculture's four regional veterinary diagnostic laboratories.

- 30 -

FOR IMMEDIATE RELEASE

LIVESTOCK AND POISONOUS PLANTS

Generally speaking, poisonous plants are not much of a problem for Alberta livestock producers. When losses do occur they are usually associated with some abnormal situation that could have been prevented.

According to Arnold Stearman of Alberta Agriculture's weed control section, livestock poisonings are most likely to occur in the spring when a pasture is overgrazed to the point where the animals will eat almost anything, including the poisonous plant, death camas, or when the pasture has been so severely overgrazed that the only green plant is the death camas. He says arrow grass is another plant that sometimes causes livestock deaths in the spring. The most poisonous part of this plant, which grows along the edges of sloughs and in soft ground, is the bulb. When an animal grazes arrowgrass, it will often pull up the bulb and eat it with the foliage.

Western water hemlock is probably the best known of the poisonous plants. It grows in marshy slough and meadow areas throughout the province as well as along the banks of streams and rivers. Although this plant poses a threat to livestock at any time of the year, it is most dangerous in the spring when the tubers and young shoots, which contain the toxic material, are most easily pulled out of the ground. It is so poisonous that a single tuber is enough to kill a full-grown cow.

Low larkspur is among the plants that sometimes cause problems in local areas. It is found in the foothills of southern Alberta, and all its parts are poisonous. There are other poisonous plants which grow in Alberta, but those mentioned above are the main ones.

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Livestock And Poisonous Plants (cont'd)

How does one prevent livestock losses in areas where poisonous plants grow and how does one get rid of the plants? Mr. Stearman says the use of chemicals is not usually practical because the plants are often scattered over a fairly large area. Also, many of them grow along the edges of a slough or in other wet places where treatment is not possible. He recommends common sense as the best defence against poisonous plants. In other words, avoid overgrazing pastures because it facilitates an influx of undesirable plants, including the poisonous ones. This means that cattle should not be put out to pasture in the spring before the grass has had a chance to green up. Some poisonous plants green up before the plants, and, since the ground is soft in the spring, they can be pulled out of the ground much more easily at that time than later in the grazing season.

Sometimes when cattle are being moved from one pasture to another, they will snatch a mouth full of forage along the way. Once in a while they will pull up a water hemlock or an arrow grass plant. There is not much that can be done to prevent such a freak accident.

The only possible way, according to Mr. Stearman, of removing poisonous plants is to grub them out and burn them. However, great care must be taken when handling water hemlock because the poisonous oil in its tubers can get into the blood stream through a cut and cause immediate death.

In cases where poisonous plants occur in patches, the best course of action is probably to fence the area off or to cultivate the plants out and reseed the area to a good forage.

Mr. Stearman says the most important thing when dealing with poisonous plants is to be able to recognize them. Anyone who is in doubt about whether or not a plant is poisonous should check with his district agriculturist, most of whom have colored photographs of the poisonous plants that grow in Alberta.

May 28, 1984

FOR IMMEDIATE RELEASE

4-H'ERS ATTEND INDIANA CONFERENCE

Two 4-H teenagers, one from the Calgary area and the other from the Edmonton area, will launch a 10-day conference in Indiana at a send-off banquet in Calgary on June 16.

Delin Sheehan, 19, of Carstairs and Curtis Webber, 19, of Stony Plain will be guests of the Canadian Imperial Bank of Commerce sponsored award dinner.

The following day they will fly to Indiana to attend the 1984 Indiana State 4-H Junior Leader Conference at Purdue University. After participating in this five-day leadership program, Delin and Curtis will spend a weekend with a host family in a nearby county. They will return to Purdue University to participate in the Indiana State 4-H Roundup on June 25.

Through the Canadian Imperial Bank of Commerce, Delin and Curtis will have the opportunity to learn about 4-H in the United States, meet new friends and experience a countryside that is very different from Alberta.

They were selected for this trip because of their outstanding involvement in 4-H and in their communities. The trip to Indiana will be a highlight in their 4-H activities, and they will gain much from their memorable experience at the Indiana conference.

- 30 -

FOR IMMEDIATE RELEASE

MEAT INSPECTION – CONSUMER PROTECTION

by Cathy Sinnott
Food Specialist, Alberta Agriculture

As you stroll the wide, clean, well-lit aisles of your local supermarket it is easy to take the safety of your food for granted. Unless you stop to think about it, you will not realize the care and attention that has gone into making sure that the food is indeed as safe as it looks.

The food industry is continually striving to maintain a high standard of sanitation and to prevent unsafe products from finding their way onto your plate. And government regulations play an important part in helping the food industry to reach these goals.

The Meat Inspection Act is a good example of these regulations. Introduced in 1972, it ensures that healthy animals are slaughtered for human consumption, and that the slaughtering takes place in an abattoir or in an establishment that is inspected by federal or provincial authorities. The premises must be suitably constructed and contain the appropriate equipment for the lighting, ventilation, water supply and refrigeration.

Meat inspectors from Alberta Agriculture's meat hygiene branch or from Agriculture Canada's food production and inspection branch check all aspects of the plant to ensure that a thorough clean-up is carried out after each slaughtering and that all the equipment is clean and ready for the next operation. If a plant does not pass inspection, its operations are suspended until the standard has been met.

The inspectors also evaluate each animal immediately before and immediately after it has been slaughtered. The live animal must be free from signs of infectious diseases and other abnormalities. After slaughter, its organs, lymphatic system, head and the dressed

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Meat Inspection — Consumer Protection (cont'd)

carcass are examined. Whole animals or parts of animals that are considered to be unfit for human consumption are condemned by the inspectors.

If the meat passes the inspection, it is stamped with the provincial blue "Alberta Approved" stamp or the federal blue "Canada Approved" stamp. Only meat and meat products inspected under one of the meat inspection acts can be sold in Alberta. Meat that is inspected under the federal system has the additional advantage of being eligible for the retail market in other provinces and in other countries.

The only time that meat processed in Alberta does not have to be provincially or federally inspected is when a farmer slaughters his own animal on his own premises for the use of his immediate family. He may take the carcass to his local meat processing plant to have it cooled and to have it processed. In such cases the carcass and each package of meat will be stamped "Uninspected — Not for Sale".

May 28, 1984

FOR IMMEDIATE RELEASE

DISTRICT AGRICULTURIST APPOINTED TO HIGH RIVER

Alberta Agriculture's regional director at Airdrie, S.C. Clark, has announced the appointment of Allen Toly to the position of district agriculturist at High River.

Mr. Toly grew up on a dryland-irrigated farm near Coaldale. His education included Olds School of Agriculture, a bachelor of science degree in agriculture from the University of Montana, U.S.A., and a masters degree from the University of California, U.S.A.

Following graduation he spent six years as territory manager in Alberta for John Deere Ltd.

Mr. Toly started his career with Alberta Agriculture in 1969 by training at Taber to be a district agriculturist, and spent the next 13 years as district agriculturist at Claresholm.

- 30 -

June 4, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Ministers Critical Of Feed Grains Policy Change	1
Add Another \$50 To The Selling Price Of Your Calves.	2
Effect Of Insecticide Eartags On Yearling Steer Gains On Pasture.	4
Environmental Centre Open House	5
Alternative Crops Outlook	6
1984 Alberta Pasture Leasing Fees	9
Correct Respirator Filters Needed When Spraying.	11
Livestock Predator And Disaster Indemnity Program	12
Deadline For Soil And Water Management Seminar Paper Abstracts.	13
The Recommended Way To Clean A Sprayer	14
Pest-Killing Spuds	15
Alberta's Women's Week	17

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Alberta
AGRICULTURE
Print Media Branch

June 4, 1984

FOR IMMEDIATE RELEASE

MINISTERS CRITICAL OF FEED GRAINS POLICY CHANGE

Alberta's minister of agriculture, LeRoy Fjordbotten, and the minister of economic development, Hugh Planche, are critical of an apparent change by the Canadian Wheat Board in Canada's feed grains policy.

The ministers have sent a telex to Ottawa protesting the wheat board's recent unilateral change in the method of calculating corn formula prices on the Prairies. They say the change, which was made on January 4, 1984, could cost Alberta's livestock industry millions of dollars.

According to Mr. Fjordbotten and Mr. Planche, the move to change Alberta's pricing basis to Vancouver from Thunder Bay ensures that "Alberta's feeders will pay a minimum of from \$1 to over \$4 per tonne more than their competitors elsewhere on the Prairies. Every point east of Scott, Saskatchewan, is unaffected by the change; only Alberta's position relative to that of its competitors is affected."

The ministers contend that they cannot understand why an export point, far from the central Canadian market, is the pricing mechanism for a domestic feed grain policy. Calling the policy "clearly discriminatory", they have requested Ottawa's immediate attention to the matter.

"Corn formula pricing" is the formula by which the Canadian Wheat Board calculates the domestic selling price of feed grains in Canada. The objective of the formula is to provide western feed grains to eastern Canada at prices that are competitive with U.S. corn.

- 30 -

June 4, 1984

FOR IMMEDIATE RELEASE

ADD ANOTHER \$50 TO THE SELLING PRICE OF YOUR CALVES

It is possible to add an extra \$50 net to the selling price of calves at weaning time, and here are some practical management suggestions that will help you to do it.

Performance Testing

The use of performance testing records to select replacement cows and to cull poor producers, plus the use of superior performance-tested bulls, should add 10 pounds to the average weaning weight of the calves.

Crossbreeding

Research has indicated that a 10 to 25 per cent increase in calf weaning weights or production per cow can be expected from a well planned crossbreeding program. For example, assuming a 500-pound calf, 20 pounds of calf per cow could be gained by increasing the number of calves weaned per 100 cows from 80 to 84. At the present time only a small portion of the potential from crossbreeding is being attained.

Growth Implants

There are growth implants on the market today that can be used on calves from birth until they are weaned, and research indicates an average weight increase of 5 per cent from their use. Four hundred pounds of calf multiplied by 5 per cent would give 20 pounds per calf.

Insecticide Eartags for Horn Fly Control

Although insecticide-impregnated eartags are relatively new, many cattlemen have used them very successfully. Good fly control means less stress on the cows, which could mean more milk, and heavier calves at weaning time. In the event that flies are a problem in the herd, the use of insecticide-impregnated eartags could mean at least an extra 10 pounds per calf.

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Add Another \$50 To The Selling Price Of Your Calves (cont'd)

Cow Cycling and Settling

Managing cows in such a way immediately after they have calved so that they will cycle, breed, settle and produce a calf every 365 days means more pounds of calf at weaning time. A calf that is 21 days older than another calf at weaning time will weigh from 30 to 40 pounds more.

Preconditioning Feeder Calves

Following the recommended practices of pre-conditioning calves in the fall, which includes weaning them 30 days before they are to be sold, can add 40 pounds or more to their selling weight. And on the average, the owner can also expect to get a premium of \$2 to \$3 per hundredweight for his trouble.

It is true that there are some costs associated with the above management practices, but Alberta Agriculture's beef cattle specialist, Ross Gould, believes that it is certainly possible to add a net gain of \$50 to the value of each calf at weaning time. However, he points out that the management practices mentioned above are not the only ones that can provide additional dividends. Wise selection, good nutrition, good pasture management, adequate protection in the winter, a good supply of water, minerals and vitamins when needed, and, perhaps, most important of all, a good health program, are all essential for a profitable cow-calf operation.

June 4, 1984

FOR IMMEDIATE RELEASE

EFFECT OF INSECTICIDE EARTAGS ON YEARLING
STEER GAINS ON PASTURE

Insecticide-impregnated eartags increased the gains of crossbred yearling steers on pasture by 10.6 per cent in trials carried out under Alberta Agriculture's Farming for the Future on-Farm Demonstration Program.

Statistics have shown that horn flies can reduce the gains of yearling cattle on pasture in southern Alberta by anywhere from 17 to 45 per cent, depending upon the size of the fly population. In the past, horn flies have been restricted to southern and east-central Alberta, but an increasing number are now being reported in the central part of the province. This situation has prompted beef producers in that area to start evaluating the possible economic advantage of using insecticide-impregnated eartags.

The trials, carried out under the On-Farm Demonstration Program in 1981, 1982 and 1983 were all located on the same farm in the Red Deer region. The first ran for 204 days, the second for 186 days and the third for 155 days. In the 1981 and 1982 trial Bovaids eartags were used on 383 crossbred yearling steers, and in 1983 Dibantic eartags were used on 260 crossbred yearling steers.

The combined data for 1981 and 1982 showed an average daily gain of 1.23 pounds per day for the untagged control steers. The Bovaids eartags increased this gain by 10.6 per cent. Also, in 1981 the tags reduced the horn fly and face fly populations by 100 per cent. In 1983 it was found that tagging 20 per cent of the steers with the Dibantic eartags reduced the horn fly population, but it was not possible to come up with a meaningful evaluation of Dibantic eartags because the overall fly population that year was too small.

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- 2 -

Effect Of Insecticide Eartags On Yearling Steer Gains On Pasture (cont'd)

Those who conducted and evaluated the three trials concluded that insecticide-impregnated eartags, which can effectively control horn flies for up to four months, can increase pasture gains and net returns in areas where horn flies are a problem.

Further information on the trials can be obtained from Dwight Karren, Regional Livestock Supervisor, Alberta Agriculture, Red Deer, Alberta, T4N 6K8 (Telephone: 340-5336).

- 30 -

FOR IMMEDIATE RELEASE

ENVIRONMENTAL CENTRE OPEN HOUSE

The Alberta Environmental Centre in Vegreville will hold an open house from 1 p.m. to 5 p.m. on June 8.

There will be displays and demonstrations of special interest to farmers on plant diseases, weed science and entomology.

Laboratories involved with water and air testing, toxicology and fish and wildlife will also be open to visitors.

For more information on the open house contact Jim Bradley at 632-6761.

- 30 -

FOR IMMEDIATE RELEASE

ALTERNATIVE CROPS OUTLOOK

The price outlook for virtually all alternative crops has improved compared with the situation a year ago, and contract prices are higher.

Alberta Agriculture's special crops analyst, Fred Boyce, reports that initial indications point to a significantly larger mustard seed acreage in Canada this year and modestly larger canary seed and pulse acreages. Grain corn, sunflower seed and buckwheat acreages are expected to remain more or less the same as they were last year.

Mr. Boyce says higher market prices and very low carryover supplies of the alternative crops have encouraged stronger contract prices this year, and most fixed-price contracts are higher than they were a year ago. He also says that exports of nearly all alternative crops increased in 1983, and that this has contributed to the strong 1984 prices.

Mustard Seed

Exceptionally high market prices and short supplies have boosted mustard contract prices, especially yellow mustard seed prices. Initial contracts were set at 40¢ per kg, 11¢ per kg above the 1983 price. However, a rapid response to this price caused it to soften to about 35¢ per kg. Brown and oriental mustard contracts are 4.5 ¢ to 6.5 ¢ per kg higher than they were last year.

The 1984 Canadian mustard seed acreage is expected to approach 290,000 acres, which would represent an increase of about 30 per cent compared with the 1983 acreage.

Canary Seed

Fixed price contracts for canary seed have been in the 25 ¢ to 28 ¢ per kg range, which is 4.5 ¢ to 6.5 ¢ per kg higher than they were at this time last year.

The Canadian canary seed acreage is expected to reach 125,000 acres this year, which would be a 17 per cent increase over the 1983 acreage, but still well below the record 1982 acreage of nearly 200,000 acres.

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Alternative Crops Outlook (cont'd)

Dry Beans

Dry bean prices are about the same as they were last year, but a larger Canadian and U.S. bean acreage could cause some price weakness as harvest time approaches. However, any decline is expected to be small.

The dry bean acreage in Western Canada was only 11,000 acres last year, and it is forecast to be 15,000 acres this year. Bean growers in Alberta are expected to seed 5,000 acres compared with 3,000 in 1983.

Dry Peas

Dry pea prices have improved during the past year and fixed price contracts reflect this improvement. They are generally in the \$180 to \$190 per tonne range, which is well above the \$150 per tonne recorded for last year. And prospects for the coming season are generally favorable.

This year's dry pea acreage is expected to be about 160,000 acres compared with 154,000 acres last year. Acreage increases are expected in all three Prairie provinces, but most of the additional acres will be in Saskatchewan and Manitoba.

Fababeans

Fababean prices are forecast to be slightly higher than they were last year. The higher prices and increased exports are expected to increase the fababean acreage that is to be harvested for grain to 18,000 acres, which would be 5,000 acres larger than the 1983 acreage. Alberta and Manitoba are the main fababean-producing provinces in Western Canada. Alberta accounts for almost a third of the total acreage and Manitoba for almost two-thirds.

Lentils

Fixed price contracts to growers for the 1984 season range from 33¢ to 38¢ per kg or from \$15 to \$17 per hundredweight, depending upon the variety.

Alternative Crops Outlook (cont'd)

The area seeded to lentils in Canada is expected to increase by about 19 per cent compared with that of last year. This is in contrast to the United States where a decrease in acreage of about the same magnitude is anticipated. The lentil acreage in the Prairie provinces is forecast at 140,000 versus 118,000 acres in 1983. Alberta's acreage is forecast to be 5,000 acres.

The above article is based on information that was available in May, 1984.

June 4, 1984

FOR IMMEDIATE RELEASE

1984 ALBERTA PASTURE LEASING FEES

Alberta's farm pasture land leasing fees have decreased on the average over the past 12 months, according to the results of an annual survey carried out between February and April of this year by Alberta Agriculture's statistics branch and farm business management branch.

The following table illustrates the decrease that has taken place in privately owned pasture rental fees.

	<u>Most Common 1983</u>	<u>Range 1984</u>	<u>Most Common 1984</u>
South	\$11-\$14/AUM —	\$3.18-\$20/AUM \$1-\$20/AC	\$7-\$12/AUM \$7-\$12/AC
Central	\$9-\$12/AUM \$14.50-\$25/AC	\$2-\$13/AUM \$1-\$30/AC	\$8-\$10/AUM \$6-\$13/AC
North	\$5.75-\$10/AUM \$6.25-\$10/AC*	\$1.65-\$12/AUM \$5-\$20/AC	\$5-\$10/AUM \$5-\$12.50/AC

* 2 reports

AUM = animal unit month

AC = acre

The south region of Alberta is the area from Olds south to the American border; the central region is the area from Olds north to Edmonton; and the north region is the area north of Edmonton and includes the Peace River region.

The great diversity in the quality of pastures being rented in Alberta is one possible explanation for the wide range in rental fees, according to Peggy Johnson of the farm business management branch. She reports that the carrying capacity of the pastures surveyed

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- 2 -

1984 Alberta Pasture Leasing Fees (cont'd)

varies from two animal units per acre to one animal unit per 27 acres. She also points out that there are many different leasing arrangements. In some cases the landlord pays for weed control, fencing, water, taxes or some portion of these, while in others the tenant is responsible for them. And the length of pasture leases varies from one year to as long as 20 years.

However, Ms. Johnson thinks that the overall decline in pasture rental fees reflects the decreasing real estate value of land in Alberta and the reluctance of people to invest in grazing cattle at a time when input costs are increasing and beef prices are fluctuating.

Pasture fees for non-irrigated provincial grazing reserves for 1984 range from \$7.05 to \$8.50 per animal unit per month, and winter grazing fees for horses have been set at \$22.50 per horse per season.

Additional information on pasture leasing fees in Alberta and on custom rates for all types of farming operations can be obtained from district agriculturists and from Alberta Agriculture's statistics branch in Edmonton (427-4018) and the farm business management branch in Olds (556-4247).

- 30 -

June 4, 1984

FOR IMMEDIATE RELEASE

CORRECT RESPIRATOR FILTERS NEEDED WHEN SPRAYING

Farmers should use the correct respirator filters when applying pesticides to their crops or they may become ill from breathing in the fumes and mist.

This advice comes from Dr. Moe Hussain, pesticide issues coordinator with Alberta Agriculture, who says that only a charcoal-type filter should be used in the respirator when applying a pesticide. Charcoal-type filters are recommended because they will absorb the fumes and mist whereas other filters will not.

Dr. Hussain says he has seen many farmers using felt filters when they are applying very hazardous pesticides like those used to control grasshoppers. He explains that felt filters will only filter out dust particles. They will not absorb chemicals.

A charcoal-type filter can be used for almost a whole spraying season if it is stored in a sealed plastic bag after each time it has been used to prevent it from absorbing odors from the air. The absorption of odors will quickly spoil its filtering ability. And Dr. Hussain warns farmers never to buy a charcoal-type filter that is not in a sealed plastic bag. Even if the filter has not actually been spoilt by being exposed to the air, its life-span will have been shortened.

- 30 -

FOR IMMEDIATE RELEASE

LIVESTOCK PREDATOR AND DISASTER INDEMNITY PROGRAM

More than 4,000 Alberta farmers have been compensated in the last 10 years under the province's Livestock Predator and Disaster Indemnity Program for livestock losses from predators and natural disasters.

Since natural disaster insurance is now available to most farmers, natural disaster losses are no longer covered under the program, but farmers will still receive compensation for livestock that are killed by a predator. The rate of compensation is 80 per cent of the market value of the animal at the time that it was killed. However, the kill must have been confirmed by an official of Alberta Agriculture, a predator specialist, a municipal fieldman, a fish and wildlife officer or a policeman for the owner to be eligible for compensation.

In the case of a probable loss, a 50 per cent level of compensation may be authorized. A probable loss would be a situation where an animal cannot, for one reason or another, be confirmed as a predator kill, but is associated with such a kill in both time and location.

In the case of a missing animal, up to a 30 per cent level of compensation may be authorized if the disappearance of the animal is associated with confirmed kills in both time and location. The compensation could go as high as 50 per cent on a grazing reserve or on a grazing lease if an official count of the animals is available.

Dr. G.W. Summers, chairman of the Livestock Predator and Disaster Indemnity Program, advises farmers whose animal or animals are killed by a predator to contact an investigator immediately and do everything they can to preserve the evidence of the kill so that the cause of death can be easily determined. He says that failure to report a kill promptly and to adequately preserve the evidence could result in the claim being rejected. Over the past 10 years about 80 per cent of the claims submitted under the Livestock Predator and Disaster Indemnity Program have been accepted.

June 4, 1984

FOR IMMEDIATE RELEASE

DEADLINE FOR SOIL AND WATER MANAGEMENT
SEMINAR PAPER ABSTRACTS

Agronomists, engineers and others in Alberta who are involved in agricultural land drainage and who are interested in presenting a paper on soil and water relationships at this year's Western Canadian soil and water management seminar should submit their abstracts to Alberta Agriculture before June 20. The seminar will be held in Winnipeg, Manitoba, in late November.

Agricultural land drainage is the theme of the seminar, which is the third in a series that have taken place since 1982 as a result of the four Western premiers having decided in 1981 to hold a soil and water management seminar every year. The seminars are rotated between the provinces, and the first was held in 1982 in Lethbridge. Its theme was soil salinity. The second was held last year in Saskatoon, Saskatchewan, and its theme was soil degradation.

The tentative program for this year's seminar will include land drainage policies and regulations; the impact of engineering, economics and resources on soil and water management; and soil and water relationships. The papers on soil and water relationships will focus on soil physics, soil-plant-water interactions and farm experiences.

The abstracts should contain the title of the paper, a brief description of the topic and the author's name. They should be sent to: Douwe Vanderwel, Soil and Water Conservation Engineer, Conservation and Development Branch, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 422-4385).

- 30 -

FOR IMMEDIATE RELEASE

THE RECOMMENDED WAY TO CLEAN A SPRAYER

The proper maintenance of a field sprayer will result in more trouble-free hours of spraying and a longer sprayer life.

Alberta Agriculture's spraying equipment specialist, Terry Footz, says that sprayers should be cleaned out at the end of each day of use by flushing the tank pump and booms with clean water. The filters, screens and nozzle tips should also be removed and cleaned. Mr. Footz recommends cleaning nozzle tips that are plugged with a soft brush, and he warns farmers never to use their mouth to blow a tip clean.

The steps listed below should be followed when changing chemicals to prevent crop damage during the succeeding spraying operation.

- Drain the sprayer completely.
- Fill the tank with clean water, circulate it through the system and drain it.
- Fill the tank again with one part household ammonia per 100 parts of water, circulate and let the solution stand overnight.
- Drain the tank entirely and rinse it with clean water.

When cleaning out an ester formulation of chemicals, put diesel fuel into the tank, circulate it through the sprayer and drain it out. Then put a detergent solution, consisting of 1 kg per 300 L of water, into the tank and circulate it for five to 10 minutes before draining. Next fill the tank with one part household ammonia per 100 parts of water, circulate and let the solution stand overnight. In the morning drain the tank entirely and rinse it with clean water. When a detergent has been used, grease the pump before using the sprayer again because the detergent will have removed the grease.

It is not necessary to use either diesel fuel or a detergent if an ester formulation has not been used.

Finally, always consult the operator's manual for proper maintenance procedures.

FOR IMMEDIATE RELEASE

PEST-KILLING SPUDS

Potato varieties that can protect themselves against insect pests, including the Colorado potato beetle, may be available to potato growers of the future.

Dr. Ulf Soehngen, entomologist at the Alberta Horticultural Research Center in Brooks, reports that scientists at Cornell University in the United States have crossed a potato variety that originated in Bolivia, South America, with a number of commercial varieties and produced hybrids that have hairy stems and foliage. At the tips of some of the hairs are tiny pouches filled with a glue-like substance that will ensnare any insect that lands on them. Even if the insect manages to extricate itself, it will soon die because its feet and mouth will have become immobilized.

At the present time most of the insects that are trapped by the new hybrid potato varieties are small, but none the less serious because some of them, like the green peach aphid, transmit destructive viral diseases. Compared with the ordinary "hairless" potato plants, some of the new "hairy" varieties killed 40 to 60 per cent of the aphid populations that were present in the field tests carried out at Cornell.

According to information received by Dr. Soehngen, even larger insects are not immune to the entrapment mechanisms of the new hybrid potatoes. Although beetle species, including the Colorado potato beetle, did not remain stuck to the plants during the tests, they seemed to find the new potato variety plants very uncomfortable. There was a reduction in feeding damage and in oviposition, which resulted in a suppression of the populations.

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- 2 -

Pest-Killing Spuds (cont'd)

"It appears", says Dr. Soehngen, "that the size of the insect trapped by the mechanism depends, to some extent, upon the number of sticky hairs per unit area of leaf. Hence, plant breeders should be able to design and breed potato varieties that will ensnare most of the insects that are pests and leave those that are beneficial."

Estimates show that insect-resistant potato varieties that make use of the above mechanism might be available to potato growers in 10 to 15 years. The American project has been underway since the mid-1970's and is supported by the United States Department of Agriculture, the International Potato Center in Peru and the Cornell University's Agricultural Experimental Station at Ithaca, N.Y.

- 30 -

FOR IMMEDIATE RELEASE

ALBERTA'S WOMEN'S WEEK

"Accentuate the Positive" is the theme of this year's Alberta Women's Week, which will take place at Olds College in Olds from July 23 - 26.

In keeping with the theme, two special guests, Margaret Lyons and Jacquie Jevne will examine the physical, emotional and spiritual rewards that can be attained by an optimistic approach to life.

Ms. Lyons, vice-president of National Radio with jurisdiction over the CBC's English Language Radio and Stereo Networks, will open Alberta Women's Week with a talk on positive thinking. Ms. Jevne, who is a private consultant, will discuss such topics as pre-retirement planning, communication skills, goal setting, conflict management and leadership skills. Because she is a working partner on a fourth generation farm, Ms. Jevne understands the challenges that are involved in blending a career with the roles of wife, mother and grandmother.

This year's select-a-session part of the program contains 11 topics, which range all the way from marketing grain to losing weight the painless way. Other topics include home computers — the hardware and software that is available to farmers — and the use of home computers for big jobs. In the use of home computers for big jobs, participants will learn about spread sheets, word processing and data base management. Clothing — A Language All Its Own; Growing Tree and Bush Fruits in Alberta; and Farming Plus — Roles of the Farm Wife are still other topics that will be covered.

June 20 is the deadline for registering for Alberta Women's Week. Those whose registrations are post marked before June 20 will be eligible for the Early Bird Draw. The fee is \$15 per person and \$30 per child (\$50 for two or more children). A child care service is available for children from three to nine years of age.

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- 2 -

Alberta Women's Week (cont'd)

Accommodation is available in Olds College at a cost of \$100 per adult and \$50 per child.

Further information and registration forms can be obtained from Jean Wilson, Home Economics Branch, Alberta Agriculture, J.G. O'Donoghue Building, 7000-113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-2412) or Ellen Fromback, District Home Economist, St. Paul, Alberta, TOA 3A0 (Telephone: 645-6301).

- 30 -

June 11, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Compudose For Growing - Finishing Steers.	1
The Effect Of Tempering Barley On Feedlot Steer Performance.	2
1984 Alberta Land Leasing Rates	3
Cleaning Out Pesticide Containers Encouraged	6
Home-Made Pea Sheller Shells Six Quarts Of Peas A Minute!	7
Correction (The Canadian Seed Trade Association Meeting)	8
Bee Compensation Program.	9
"Hairy" Alfalfa For Insect Control	10
Horses Too Have Their Preferences.	12
Breton Plots Field Day	13
1984 List Of Alberta Market Gardeners	14
Your Wandering Food Dollar And Market Margins	15
District Home Economist Appointed To Manning.	18

Phone: (403) 427-2121

Alberta
AGRICULTURE
Print Media Branch

June 11, 1984

1

FOR IMMEDIATE RELEASE

COMPUDOSE FOR GROWING - FINISHING STEERS

Compared with other available growth promotant implants for finishing steers, a single implant of Compudose has the advantage of obtaining a response from the animals over a longer period of time.

This conclusion was reached by University of Alberta researcher, Dr. G.W. Mathison, and L.A. Stobbs of Eli Lilly Canada Inc. after having conducted a trial on 80 growing-finishing cattle over a 140-day period. The researchers were studying the sustained release of estradiol 17 beta, which is designed to be released by Compudose over a 200-day feeding period.

They found that the implanted cattle gained 15 per cent faster, ate 7.6 per cent more feed per day and required 6.7 per cent less feed per pound of gain than the control group.

The above results compare with a 7 to 18 per cent increase in rate of gain reported by researchers working with other growth promotant implants and a feed efficiency improvement of 6 to 10 per cent.

The one problem noted in the University of Alberta trial was the loss of 12.5 per cent of the implants during the 140-day trial period. Other researchers have reported implant losses ranging from 4 to 16 per cent. However, one experiment has shown that implant losses can be greatly reduced by cleaning the ears off well before inserting the implants.

Further information on growth implants can be obtained from Ross Gould, Beef Cattle and Sheep Branch, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

- 30 -

June 11, 1984

FOR IMMEDIATE RELEASE

THE EFFECT OF TEMPERING BARLEY ON
FEEDLOT STEER PERFORMANCE

Barley can be satisfactorily tempered in small commercial feedlots, and tempered-rolled barley tends to give better animal performance than dry-rolled barley.

This conclusion was reached as a result of a trial that was carried out in the Red Deer region under Alberta Agriculture's Farming for the Future On-Farm Demonstration Program. The trial was set up to compare tempered-rolled and dry-rolled barley in barley silage rations in a commercial feedlot, and it involved 81 Simmental X Hereford yearling steers. The steers were randomly assigned to either a tempered-rolled barley or a dry-rolled barley ration. The tempered-rolled barley was soaked in water for about 12 hours before it was rolled and enough was tempered at one time for a 10 to 14-day feeding period. Both the tempered and the dry-rolled barley were fed once a day to appetite, and individual weight gains were measured over the 66-day trial period.

The steers fed the tempered-rolled barley gained 3.51 pounds per day, while those fed the dry-rolled barley gained 3.06 pounds per day. The feed intake of the steers fed the tempered-rolled barley was 24.2 pounds of dry matter per day and their feed efficiency was 6.89 pounds of dry matter per pound of gain. The feed intake of the steers fed the dry-rolled barley was 22.2 pounds of dry matter per day and their feed efficiency was 7.25 pounds of dry matter per pound of gain. In other words, tempering the barley before it was rolled increased gains by 15.4 per cent, feed intake by 9 per cent and feed efficiency by 5 per cent.

The trial also showed that tempering can be satisfactorily accomplished with standard feed processing equipment and that the use of tempered grain creates no special problems in the preparation, storage or delivery of the feed.

Further information on the trial can be obtained from Dwight Karren, Regional Livestock Supervisor, Alberta Agriculture, Red Deer, Alberta, T4N 6K8 (Telephone: 340-5336).

Alberta
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FOR IMMEDIATE RELEASE

1984 ALBERTA LAND LEASING RATES

On the average farmland leasing changes in Alberta have decreased slightly over the past year, according to results of an annual survey carried out by Alberta Agriculture between February and April of this year. The results were collected by the statistics branch and farm business management branch.

The following table compares cash land rental charges between 1983 and 1984:

Cost Per Acre Of Rental Land in 1983 and 1984

	<u>Most Common 1983</u>	<u>Range 1984</u>	<u>Most Common 1984</u>
Region 1 Irrigated	\$50-\$60	\$39-\$100	\$60-\$80
Non-Irrigated	\$25-\$40	\$10-\$60	\$25-\$40
Region 2	\$30-\$40	\$15-\$52	\$25-\$35
Region 3	\$25-\$40	\$ 9-\$45	\$20-\$30
Region 4	\$20-\$35	\$25-\$42	\$25-\$35
Region 5	\$18-\$25	\$ 7-\$40	\$15-\$25
Region 6	\$15-\$25	\$15-\$30	\$15-\$20

Region 1 is the most southerly portion of the province and includes Brooks, Bassano, Vulcan and Nanton on its northern border. Region 2 is the south-central portion of the province and its northern border is bounded by a horizontal line through Sullivan Lake, Trochu, Olds and Sundre. Region 3 is the north-central area and its northern boundary includes Sounding Lake, Daysland, Camrose and Wetaskiwin. Region 4 is the northeast region and is the portion of the province that lies along the Saskatchewan border between Provost

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1984 Alberta Land Leasing Rates (cont'd)

and Fort McMurray. Its western border includes Lac La Biche, Smoky Lake, Lamont, To-field and Hardisty. Region 5 is the northwest region and lies west of Edmonton and north of Wetaskiwin. Region 6 is the Peace River region.

Peggy Johnson of Alberta Agriculture's farm business management branch sug-gests that the decrease in land rental charges reflects the decline in the value of farmland real estate in Alberta and the increase in farm input costs.

She believes that the range in rental charges shown in the above table can be ex-plaind by such factors as the quality and quantity of land being rented; the perceived profit-ability of the crops to be grown; whether or not the lease was signed when land values were high; and whether or not the land is being rented to an established, reliable tenant. An established tenant often gets a lower rent than other tenants because of a good record in looking after the land.

Ms. Johnson reports that 53 per cent of the farmland rented this year has been rented on a cash basis compared with 60 per cent in 1983. She says that the decrease in land rental charges is less evident in crop sharing agreements than in cash rental agreements as is illustrated in the following table:

<u>Landlord-Tenant Crop Share Agreements</u>					
	<u>Landlord Share</u>	<u>Tenant Share</u>	<u>1983</u>	<u>1984</u>	
Region 1 and 2 (south)	33.3%	- 66.7%	77%	77%	
	40%	- 60%	12%	9%	
	50%	- 50%	5%	9%	
	others		6%	5%	
Region 3 and 4 (central)	33.3%	- 66.7%	94%	97%	
	others		6%	3%	
Region 5 and 6 (north)	25%	- 75%	26%	22%	
	33.3%	- 66.7%	74%	72%	
	others		0	6%	

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1984 Alberta Land Leasing Rates (cont'd)

Ms. Johnson says that landlords in Region 1 and 2 may receive a larger proportion of the crop than those in the other regions because they usually pay for the water that is used on irrigated crops. In Regions 3 and 4 landlord-tenant share of the crop is predominantly based on about a 33 per cent to 66 per cent (landlord-tenant) split. The landlord pays for about 33 per cent of the fertilizer and herbicide costs. In Regions 5 and 6 a quarter of the agreements are based on a 25 per cent to a 75 per cent split because the tenant pays all the input costs. This type of agreement has approximately the same dollar value as the 33 per cent to 66 per cent split when the landlord's responsibility for a third of the fertilizer and herbicide costs are taken into account.

Additional information on land leasing charges and on custom rates for all types of farming operations can be obtained from district agriculturists and from Alberta Agriculture's statistics branch in Edmonton (427-4018) and the farm business management branch in Olds (556-4247).

June 11, 1984

FOR IMMEDIATE RELEASE

CLEANING OUT PESTICIDE CONTAINERS ENCOURAGED

Alberta Agriculture is encouraging farmers to clean out their pesticide containers before they take them to a pesticide container disposal site.

According to Dr. Moe Hussain, pesticide issues coordinator with Alberta Agriculture, there are two main ways of cleaning out pesticide containers. One is to fill each container as soon as it has been emptied about a third full of water, swish the water around and then empty it into the spraying tank.

The other method entails puncturing a hole in the bottom of the container, while it is still inserted into the spraying tank, with a device called a Jet Rinse that is attached to a water hose. The water which flows through the Jet Rinse into the container will wash any residual chemical out into the spraying tank.

Dr. Hussain points out that farmers who rinse out their pesticide containers before disposing of them can realize an extra \$5 per container by recovering a substantial amount of chemical that would otherwise have been thrown away.

The Jet Rinse can be purchased from many farm supply and equipment dealers in Alberta.

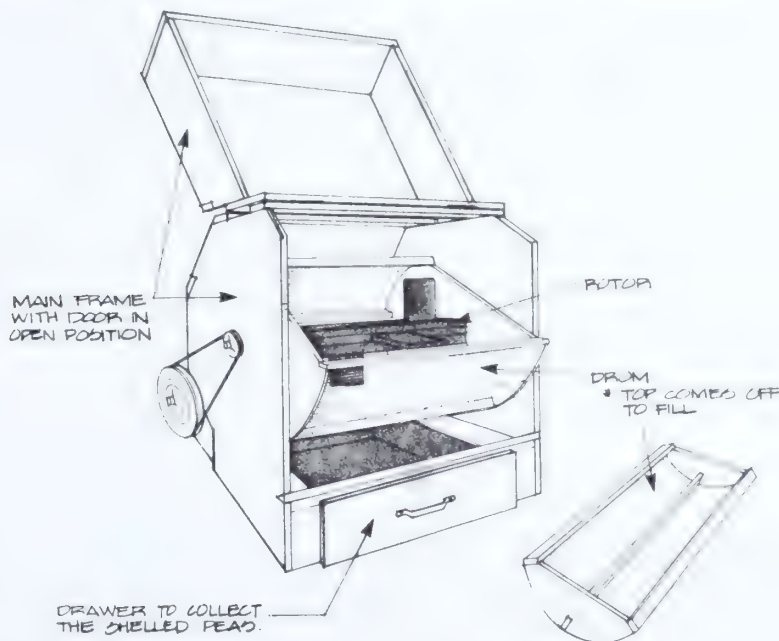
Further information on the Jet Rinse and on pesticide container disposal sites in the province can be obtained from district agriculturists and agricultural fieldmen.

- 30 -

June 11, 1984

FOR IMMEDIATE RELEASE

HOME-MADE PEA SELLER SHELLS SIX
QUARTS OF PEAS A MINUTE!



Blue print for home-made pea sheller.

Alberta Agriculture engineers have revised a 20-year-old Agriculture Canada blue print of a home-made pea sheller for which there seems to be a renewed demand.

Extension engineer Wendy McLeod says the sheller is ideal for people who have a large farm vegetable garden but little time to spend shelling peas by hand. She explains that the sheller can be operated with a crank or with a small motor and that it consists of rapidly rotating paddles that throw the peas against a slowly rotating mesh drum. The pods shatter when they hit the drum and the peas drop into a collecting drawer underneath it.

According to Ms. McLeod, this home-made pea sheller can shell up to six quarts of peas in one minute!

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- 2 -

Home-Made Pea Sheller Shells Six Quarts Of Peas A Minute! (cont'd)

Further information on the pea sheller and free copies of the blue print can be obtained from Wendy McLeod, Engineering Branch, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-2181).

- 30 -

CORRECTION

The Canadian Seed Trade Association Meeting will be held from July 8 - 11 in the Westin Hotel in Ottawa, Ontario; NOT in the Westin Hotel in Edmonton as stated in the April issue of "Coming Agricultural Events".

- 30 -

June 11, 1984

9

FOR IMMEDIATE RELEASE

BEE COMPENSATION PROGRAM

The Alberta Bee Compensation Program is designed to compensate beekeepers for bee hive and equipment losses that result from the activity of bears.

To be eligible to claim under this program, the person must be a registered beekeeper, he must have at least 40 hives in production and his beeyard must be fenced in by an electric fence.

An individual claim for beeyard damage that is not more than \$200 does not have to be investigated, but the claim must be accompanied by a notarized statement of loss. A beekeeper can have up to \$500 worth of small individual claims before he has to have them investigated.

However, an individual claim for more than \$200 must be investigated by a fish and wildlife officer, Alberta Agriculture predator specialist, district agriculturist or an agricultural fieldman as soon as possible after the damage has occurred. In fact, all bear attacks on beeyards must be reported to a fish and wildlife officer within 24 hours of the time they occurred if they are to qualify for compensation.

According to the chairman of the Alberta Beeyard Compensation Program, Dr. G.W. Summers, claims submitted under the program are examined by a standing committee which consists of farmers and public servants who were appointed to carry out this duty. The committee meets once a year or more than once a year if the number of claims that have accumulated justifies the expense of such a meeting.

- 30 -

FOR IMMEDIATE RELEASE

"HAIRY" ALFALFA FOR INSECT CONTROL

American scientists have found that some alfalfa varieties, especially some of the annuals, have erect glandular hairs on their stems and leaves that are very effective in controlling insect pests.

The scientists, from the United States Department of Agriculture, Texas A & M University and Kansas State University, have been breeding and evaluating several varieties of "hairy" alfalfa for their ability to repel or kill such alfalfa pests as the alfalfa weevil, the potato leafhopper, spider mites, spotted aphids and the alfalfa seed chalcid.

The scientists have found that the glandular hairs produce a sticky substance that builds up in the tips of the hairs and then breaks out and runs down the stems or the leaves. Small insects and spider mites apparently become fatally entrapped when they try to move to the succulent tip of a leaf.

According to information received by Dr. Ulf Soehngen, entomologist at the Alberta Horticultural Research Center in Brooks, the location of the glandular hairs on alfalfa plants is very important because each insect attacks the plants in a different way. The seed chalcid, for example, injects its eggs into the seed pods where its young develop and mature. In this case, hairs on the pods would prevent the egg laying.

It appears that factors other than hairs may contribute to insect control in alfalfa. When alfalfa weevils were offered both annual and perennial alfalfa varieties in a recent test conducted by the American scientists, they found that the weevils avoided the annual species until the hay types had been decimated. Those involved in the research think that odor influenced the behavior of the weevils.

- (cont'd) -

"Hairy" Alfalfa For Insect Control (cont'd)

Dr. Soehngen says the scientists are now studying the differences in alfalfa hairs and the differences in the quantity and quality of the sticky substances exuded by various lines. An annual species from Australia, *Medicago scutellata*, has apparently proved to be among the most effective for controlling insects. Lines like this one are now being crossed with hay-type alfalfa varieties and then backcrossed to transfer the glandular hairs to the hay-type varieties. Several cycles of selection are required following each backcross to regain hair density, much of which is lost in a backcross.

The ultimate aim of the scientists is to breed an alfalfa variety that is resistant to both insect pests and to diseases.

June 11, 1984

12

FOR IMMEDIATE RELEASE

HORSES TOO HAVE THEIR PREFERENCES

It seems that horses prefer cubes to other forms of alfalfa feed.

A recent report on a research program that was started at the University of Alberta two years ago says that although there was no significant difference in the digestibility of protein or energy when alfalfa was fed in the cube, pelleted, chopped and long forms, voluntary consumption was the highest for the cubes.

The research project involved eight mature horses that were fed the four different forms of alfalfa, and placed in metabolism crates where their urine and feces were collected to determine the digestibility of the protein and energy as well as their voluntary intake of the various forms.

According to Alberta Agriculture's district agriculturist at Three Hills, Ted Nibourg, the report shows that the cubes were eaten at an average rate of 16.5 kg per day, while the pellets were eaten at an average rate of only 12.9 kg per day. The consumption rate per day for the chopped alfalfa hay was 13.9 kg and the rate for long alfalfa hay was 13.4 kg.

Cubes and pellets are popular because they are easier to handle than long alfalfa hay and they spoil less easily. Also they cause less dust and there is less waste because the horses do not sort through them as they do with conventional alfalfa hay.

- 30 -

FOR IMMEDIATE RELEASE

BRETON PLOTS FIELD DAY

Fertilizer placement is the theme of the 54th Breton Plots Field Day and Soils — Crops Clinic which will be held at the Breton Plots on July 6. The plots are located 110 km southwest of Edmonton.

The topics that will be covered are "Introduction to Fertilizer Placement"; "Placement of Nitrogen Fertilizers"; "Placement of Phosphorous Fertilizers"; and "Machinery for Fertilizer Placement".

The field day will include a tour of the plots which are owned and operated by the University of Alberta and located on Gray Luvisolic soils which are difficult to manage because of poor physical conditions, acidity and a low nutrient status.

The research going on at the plots was started in 1929 and some of the plots have been in existence since 1930. However, several new rotations and some short-term experiments are also being carried out.

Specialists from Alberta Agriculture will be on hand to answer specific questions about soils, crops and weed management.

Further information on the plots and on the field day, which will start at 1 p.m., can be obtained from the University of Alberta's Department of Soil Science at 432-3242; Jim Robertson at 432-4942 or Doug Walker at 542-5368.

- 30 -

June 11, 1984

FOR IMMEDIATE RELEASE

1984 LIST OF ALBERTA MARKET GARDENERS

The 1984 edition of the publication "Alberta Market Gardeners", is now available to anyone who would like it.

In addition to listing the names of about 300 market gardeners in Alberta and their telephone numbers, the publication contains directions on how to get to each garden, the months in the year and the number of days in the week it is open, the method of sale (pick-your-own, farm gate, farmers' market) and the main fruit and vegetable crops that are grown.

To make it easier for people to find the market gardens, they have been listed under one of 11 sections, according to their location. These sections are: Peace River, Bonnyville, Fort McMurray, Edmonton, Red Deer, Drumheller, Calgary, Lethbridge, Taber, Brooks and Medicine Hat.

Copies of "Alberta Market Gardeners" can be obtained from district agriculturists, travel centres, the Publications Office, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6, and the Alberta Horticultural Research Center, Bag Service 200, Brooks, Alberta, T0J 0J0.

- 30 -

June 11, 1984

15

FOR IMMEDIATE RELEASE

YOUR WANDERING FOOD DOLLAR AND MARKET MARGINS

by Jeannette Tramhel
Food Statistician, Alberta Agriculture

The price of food is of concern to everyone, but how many people ever wonder what happens to that dollar they spent on groceries?

Think about that dollar you recently paid to the supermarket cashier for a moment, and ask yourself what you were actually paying for when you bought that loaf of bread, milk, etc. Of course a portion of that dollar was payment for the ingredients — wheat or milk — but the price you paid included payment to the processor who milled the flour or to the dairy which pasteurized the milk. Then in the case of the bread, someone baked it and someone else delivered it. Still another person stocked the store shelves and someone else rang up the till. Who paid for all these services? You did!

The dollar you paid ultimately finds its way back to a myriad of market participants whose services were all required to enable you to purchase a particular food item in the particular form you wanted and at the particular location you wanted. Although it would be a formidable task to trace all the movements of that dollar you spent, it is possible, in the case of some food items, to determine what portion of a consumer's dollar goes to the retailer, the wholesaler and the producer.

A new publication entitled "Market Margins", compiled by Alberta Agriculture's statistics branch, shows that 52¢ of a consumer's dollar that was spent on milk in 1983 went to the milk producer and that 43¢ went to the dairy (wholesaler) for processing and packaging the milk. The retailer, who performed the handling and storage services, received 5 ¢. Out of these returns, each of the marketers must cover different costs. The milk producer

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Your Wandering Food Dollar And Market Margins (cont'd)

must cover his production costs which include feed, capital costs for barns and milking equipment and labor. The dairy must cover the costs involved in processing, transporting and packaging the milk as well as labor costs and capital costs for the buildings and equipment. The retailer must cover labor costs and storage costs. When the "input" cost increases at one level in the market structure, the additional cost is either passed on through the system to the consumer, or, as is more usual in the short-run, it is absorbed by one of the marketers who then experiences a margin squeeze.

As more processing is required for food items, not only does the total price of the item increase, but the proportion of the price that goes to the processor also increases. Hence, the producer's share of a processed item, such as bread, is smaller in comparison to the share he would receive from relatively unprocessed items like milk and meat. In 1983 consumers paid an average of 83¢ per loaf of store-label bread (baked by the retail supermarket bakery) and 97 ¢ for a loaf of private-label bread (baked by a private bakery and sold to the retailer).

Out of a dollar spent on private-label bread, 10¢ went to the retailer, 69¢ went to the baker (wholesaler), 8¢ went to the processors and 12¢ went to the producers of the original ingredients. Of the 12 ¢ that went to these producers, the wheat producer got about 8¢ , the dairy producer got 2 ¢ and almost one cent each went to the canola and sugar beet producers.

Of the 8¢ that went to the processors, more than 6 ¢ went to the miller and less than one cent each went to the processors of shortenings, milk powder and sugar. It is not surprising that the largest portion of the consumer's bread dollar goes to the marketer who bakes the bread, because of the labor involved.

However, in the marketing of red meats, the largest portion of the consumer's dollar goes to the producer. Out of one dollar spent to buy beef in 1983, about 58 ¢ went to the producer. Out of a dollar spent to buy pork, about 45 ¢ went to the producer. Equip-

Year Marketing Food Dollar And Market Margins (cont'd)

ment and labor are required to process slaughtered animals into saleable meat, and depending upon which of the marketers performs this function, value is added at the corresponding level. If, for example, hog carcasses were broken into primals and processed by the packer in 1983, the packer (wholesaler) would have received 30 per cent of the consumer's pork dollar and the retailer would have received 25 per cent. Some packers sell ready cut, boxed beef to the retailer, while others sell sides of beef. If the beef sides were cut up by the retailer in 1983, the retailer would have received 38 per cent of the consumer's beef dollar and the packer would have received 4 per cent.

Although margins fluctuate in the short-term, large or lasting changes occur only over a longer period. This is because margins are determined to a large extent by long-term fixed costs, which must be covered if the industry is to survive. Even a 5 per cent shift in margins in the course of one year can have serious consequences for market participants.

To the consumer, it is often only the end result of market changes that become apparent in the form of changing retail food prices. Hopefully, as the components of retail food pricing are better understood, we will become more informed consumers.

Copies of "Market Margins," which covers margins and price spreads for milk, bread, beef and pork from January 1983 through December 1983, can be obtained from the Statistics Branch, Alberta Agriculture, J.G. O'Donoghue Building, 7000-113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-4006).

June 11, 1984

FOR IMMEDIATE RELEASE

DISTRICT HOME ECONOMIST APPOINTED TO MANNING

Shirley Myers, head of Alberta Agriculture's home economics branch, has announced the appointment of Winnie Chong to the position of district home economist at Manning.

Ms. Chong was born and raised in Vancouver, B.C., and moved to Edmonton three years ago. She studied home economics for two years at the University of British Columbia and then transferred to the University of Alberta's faculty of Home Economics after having attended two summer session courses. She graduated from the University of Alberta on June 6 of this year, having majored in clothing and textiles.

Ms. Chong's previous jobs include having worked as a child care aide at a community day care centre in Vancouver, a practicum student at the Better Business Bureau in Edmonton and a summer assistant district home economist at Spirit River last summer.

She was chairman of the Association of Canadian Home Economics Students at the University of Alberta in 1982-83.

- 30 -

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June 18, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Nutritive Processing Agreement Extended	1
Help Sought In Locating Tuber Flea Beetle Infestations	3
The Quality Of Farm-Mixed Sow Feeds Needs To Be Improved	6
Correction (Alberta Women's Week)	7
Cost Of Gain Increases With Heavier Cattle Weights	8
Soil And Feed Testing Fees To Increase	10
Grass-Alfalfa Pasture Mixtures And The Risk Of Bloat	11
Points To Consider When Having Custom Work Done This Summer	13
Plant-Derived Insecticides	16
Length Of Storage Time For Frozen Beef	18
Marketing Director Appointed	19

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Alberta
AGRICULTURE
Print Media Branch

FOR IMMEDIATE RELEASE

NUTRITIVE PROCESSING AGREEMENT EXTENDED

The Nutritive Processing Assistance Agreement, a federal-provincial program that has provided more than \$24 million in grants to rural Alberta businesses, has received a one-year extension.

Senator H.A. (Bud) Olson, leader of the Government in the Senate, on behalf of Ed Lumley, federal Industry Minister (DRIE); and Jim Horsman, minister of Alberta Federal and Intergovernmental Affairs, signed the one-year extension.

The extension means that nutritive processors in rural Alberta will have an additional 12 months to apply for financial assistance. The previous deadline for applications was September 30, 1984, but processors now have until September 30, 1985 to apply.

Both Senator Olson and Mr. Horsman underlined the cooperative nature of the agreement and the success it has enjoyed since it was established in 1975.

"Because of nutritive processing assistance, many more businesses are processing locally produced materials, and, as a result, many fine Alberta agricultural products have displaced goods that were formerly shipped in from other parts of Canada or imported", said Senator Olson. "Some of the firms have also been successful in exporting Alberta products to international markets," he added.

The senator noted that the nutritive agreement fully complements DRIE's new Industrial and Regional Development Program and the Western Transportation Industrial Development Program.

Mrs. Osterman, acting on behalf of Leroy Fjordbotten, minister of Alberta Agriculture, also noted the importance of the nutritive processing assistance agreement to rural Alberta. "By encouraging the local processing of agricultural products in rural Alberta," she said, "the agreement tends to reinforce the link between the farmer and the processor. This link has helped to strengthen and diversify the economy of the entire province."

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Nutritive Processing Agreement Extended (cont'd)

Mr. Fjordbotten, on a trade mission to the Pacific Rim, previously indicated that this type of activity is important to Alberta's policy of economic diversification and balanced growth. The program has supported more than 340 projects representing about 1,800 full-time jobs throughout rural Alberta. And the projects have resulted in about \$131 million in capital investments. They have included meat processing plants, bakeries, dairy plants, vegetable and mustard plants and pharmaceutical facilities.

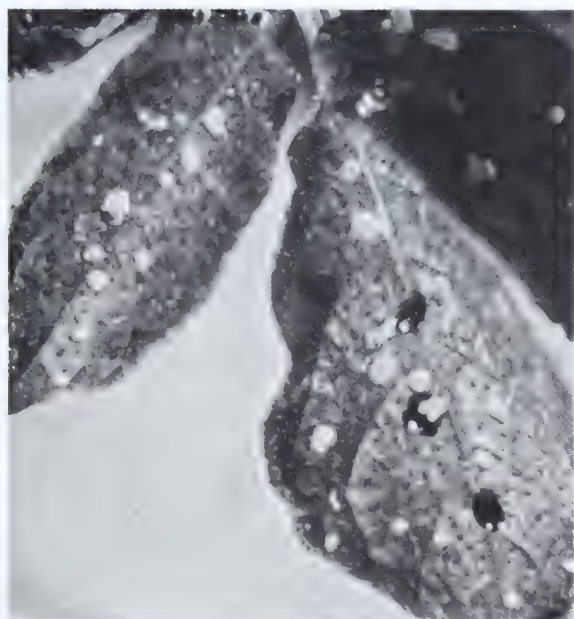
The nutritive processing assistance agreement is jointly administered by the governments of Canada and Alberta, and all funding is shared equally.

For further information contact Dr. Jim E. Wiebe, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-4287).

June 18, 1984

FOR IMMEDIATE RELEASE

HELP SOUGHT IN LOCATING TUBER FLEA BEETLE INFESTATIONS



Tuber flea beetles on potato foliage.



Tuber flea beetle damage on potato.

The help of commercial potato growers and home gardeners who grow potatoes is being sought by Marilyn Steiner, an entomologist at the Alberta Environmental Centre in Vegreville, in her attempt to locate tuber flea beetle infestations.

The severe damage experienced in home gardens in Edmonton during the last few years, and the possibility that the beetles may invade commercial potato fields is causing concern. Although this insect has been a serious potato pest in the western part of North America since the 1920's, it was only reported in Alberta in 1974 when it showed up in Edmonton home gardens. Subsequent reports indicate that the damage it causes is now widespread throughout the Edmonton area, and tubers showing the characteristic damage have been submitted in the last year to the regional crop laboratory at the Alberta Horticultural Research Center in Brooks.

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Alberta
AGRICULTURE
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Help Sought In Locating Tuber Flea Beetle Infestations (cont'd)

So far the tuber flea beetle does not seem to have invaded commercial potato fields, but such an invasion is probably just a matter of time. Ms. Steiner surveyed 18 commercial potato fields within a 20 km radius of Edmonton in late June of last year and found very minor infestations in only two. One field was located about 3 km from Sherwood Park and the other about 3 km from St. Albert.

Adult tuber flea beetles overwinter well below the surface of the soil and feed on solanaceous plants like nightshade in the spring until the potato plants emerge. Ms. Steiner would like anyone who grows potatoes to check for the beetles as soon as their potato plants emerge or from about mid-June onwards. It is not yet known whether two generations of beetles are produced in Alberta in one season.

In its adult stage, the tuber flea beetle is a small, dull black insect that jumps when it is disturbed. It measures from 1.7 to 2 mm in length and is covered with fine hairs that are visible under a magnifying glass. It chews 'shot holes' in the leaves of potato plants and lays its eggs in the soil. It is the larvae, which are whitish in color, and spend their lives in the soil, that do the damage. They feed mainly on potato tubers where they leave small brown corky slivers that can extend as far as 6 mm into the tuber at right angles to its surface. They also leave winding tunnels on, or just below, the surface of the potato skin. According to Ms. Steiner, potatoes that have been attacked by tuber flea beetles usually have a 'pimply' appearance, which is often mistakenly thought to have been caused by common scab or wart disease. She says such potatoes are perfectly safe to eat, but that their unsightly appearance has an adverse effect on their marketability. However, the beetles have no effect on potato yields.

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Help Sought In Locating Tuber Flea Beetle Infestations (cont'd)

Ms. Steiner advises potato growers to start control measures against the beetles as soon as they are seen or as soon as 'shot holes' are noticed on the leaves of the potato plants. She recommends that home gardeners apply carbaryl (Sevin) 50 per cent WP at a rate of 7.8 ml/L as a foliar spray. The application should be repeated at seven to 10-day intervals or as necessary (rain will render the chemical ineffective). Commercial potato growers should use endosulfan, carbaryl or permethrin at the rates recommended on the labels.

According to Ms. Steiner netted gem potatoes are more severely attacked by tuber flea beetles than Warba and Kennebec. Pontiac is the variety that is the least affected.

She urges potato growers who suspect that they may have tuber flea beetles in their potato crops to take a specimen of the beetles and the damaged potato plant foliage to their district agriculturist or to send the specimens directly to her. She recommends knocking the beetles off the plants into a plastic vial or plastic bag and wrapping the damaged foliage in newspaper. The specimens should be accompanied by the following information: variety of potato, the location of the garden or farm, the size of the planting, the extent of the infestation, the nearest commercial planting and the length of time that the problem has been noticed.

Specimens that are sent directly to Ms. Steiner should be accompanied by the same information, and the vial or bag containing the beetles should be packed in a non-crushable container. The newspaper containing the foliage should be put into a plastic bag. And they should be addressed to Ms. Marilyn Steiner, Plant Sciences, Alberta Environmental Centre, Box 4000, Vegreville, Alberta, T0B 4L0 (Telephone: 632-6761).

FOR IMMEDIATE RELEASE

THE QUALITY OF FARM-MIXED SOW
FEEDS NEEDS TO BE IMPROVED

The feed analysis results of nearly three hundred samples of pregnant and nursing sow feeds show an urgent need for an improvement in the quality of farm-mixed feeds, if they are to meet the nutritional requirements of today's high-producing sows.

The analysis was carried out at the Agricultural Soil and Feed Testing Laboratory in Edmonton, and involved 201 samples of pregnant sow feeds and 91 samples of nursing sow feeds. Sam Jaikaran, Alberta Agriculture's swine nutritionist, reports that about 40 per cent of the samples were found to have a protein content of less than 14 per cent, 65 per cent were found to have a calcium content of less than 0.9 per cent and 60 per cent were found to have a phosphorous content of less than 0.7 per cent.

He says the samples were submitted by farmers who mix their own feeds, and that they did not include samples from veterinarians who suspected a feed problem.

A pregnant sow that is receiving 2 to 3 kg of feed a day should be getting about 14 per cent protein in her diet, and a nursing sow should be getting about 16 per cent.

According to Mr. Jaikaran, a severe lack of protein in the diet of sows will result in poor body condition and "silent" heats. The ability of the sows to produce milk may also be impaired and they may experience a longer than normal interval between weaning and re-breeding. Litters born to such sows very often have low birthweights and a poor survival rate.

The minimum levels of calcium and phosphorous recommended for both pregnant and nursing sows diets in Alberta are 0.9 per cent and 0.7 per cent respectively. Mr. Jaikaran says a shortage of calcium and phosphorous in the diets of high-producing sows almost invariably results in leg weakness soon after they have been weaned. He points out that many

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The Quality Of Farm-Mixed Sow Feeds Needs To Be Improved (cont'd)

sows, especially those that are heavy milkers, have to be culled from the herd because of their inability to stand up after weaning. And estimates show that about 50 per cent of the sows that go down at this time never recover.

"Breeding programs that advocate the culling of sows because of leg weakness", says Mr. Jaikaran, "should be viewed with caution because some of the leg problems may be feed-induced. When this is the case, it will be the most productive sows that will suffer the worst damage and that will be lost to the herd."

CORRECTION

The deadline for registering for Alberta Women's Week is June 29; NOT June 20 as stated in the first sentence of the fourth paragraph of the article entitled "Alberta Women's Week" that was carried in the June 4 issue of Agri-News. The second sentence "Those whose registrations are post-marked before June 20 will be eligible for the "Early Bird Draw" is correct.

FOR IMMEDIATE RELEASE

COST OF GAIN INCREASES WITH HEAVIER CATTLE WEIGHTS

Cattle feeders can seldom profit by holding their cattle for an extended period in the hope of getting a better price.

This is because cattle begin to put on more and more fat as they reach the 900 to 1,000-pound liveweight level, and fat is more expensive to produce than muscle tissue. By the time most feedlot steers on a high energy ration have reached 1,150 to 1,200 pounds, they will be converting a large proportion of their feed into fat.

According to Alberta Agriculture's beef cattle specialist, Ross Gould, there are two factors that make fat more costly to produce than muscle. The first is that muscle tissue contains more water than fat tissue, and water is one of the least expensive components of meat. The second is that a unit of fat contains about 2.25 times as much energy as the same unit of protein, which is the main component of muscle tissue. Mr. Gould says when both these factors are taken into consideration, nutritionists have estimated that it takes from five to six times more feed to produce a pound of carcass fat than it takes to produce a pound of carcass muscle tissue.

Mr. Gould also reports that data developed by the Texas Agricultural Extension Service shows a rapid increase in the cost of gain as yearling cattle are fed beyond 100 days. And he points out that although the cost of such gains may differ somewhat from those experienced in Alberta, the relationship between the cost of early and later gains is the same.

He also says when Texas beef cattle specialists summarized the data on more than 15,000 steers in a survey of 384 records, they found that the total average cost of feeding medium frame, lean 650 to 700-pound steers for 100 days to 955 pounds was \$68.70 per hundred pounds of gain. At this point their break-even selling price was \$69.63, based on U.S. feed costs.

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Cost Of Gain Increases With Heavier Cattle Weights (cont'd)

From 100 to 110 days on feed, the average gain was 28 pounds (955 to 983 lb) at a cost of 74.61¢ per pound. From 150 to 160 days on feed, the average gain was 24 pounds (1,090 to 1,114 lb) at a cost of 89.37¢ per pound of gain. From 200 to 210 days on feed the average gain was only 15 pounds (1,189 to 1,204 lb) at a cost of \$1.36 per pound of gain. From these figures it is easy to see that as the steers got heavier, their daily gain was cut by almost half, while the cost of a pound of gain almost doubled!

Mr. Gould points out that large frame steers would show a similar pattern, but that their weights at each stage of finish might be 100 to 150 pounds heavier.

And he also points out that it is more important for a feeder to know his break-even price than to know the cost of the cattle's last 10 days on feed. As we saw above, medium frame steers that weighed 955 pounds had a break-even price of \$69.63, but they might not have graded A1 because of lack of finish. At 1,114 pounds they would probably have made the A1 grade with a break-even price of \$71.14 for the whole 160-day feeding period. Mr. Gould says a feeder who held his steers for another seven weeks to 1,204 pounds, hoping for a better market, would have needed a break-even price of \$73.88 for the 210-day feeding period. And he explains that not only would the feeder's break-even price have gone up by almost \$2.75 per hundredweight, compared with the 160-day feeding period, but, at a weight of 1,204 pounds many of the steers would probably be subject to a discount of 6¢ to 8¢ per pound liveweight for grading A3 or A4.

Dr. Mick Price of the University of Alberta's Department of Animal Science believes that it is usually less expensive to err on the side of under-finishing rather than over-finishing because the break-even price will be less and the B1 discount is usually less than the A4 discount.

FOR IMMEDIATE RELEASE

SOIL AND FEED TESTING FEES TO INCREASE

Service fees for standard soil and feed analyses at Alberta Agriculture's soil and feed testing laboratory in Edmonton will increase to \$15 per sample on July 1, 1984. The change in fee brings it more in line with fees charged by private laboratories and is consistent with the government's policy of encouraging private industry in Alberta.

The soil and feed testing laboratory's director, Don Laverty, says under the new fee schedule all standard soil tests will be carried out on one soil surface sample and two sub-soil samples per field. This practice is intended to encourage farmers to take deeper samples because they provide a better indication of a field's fertility level.

A standard analysis of grain and roughage samples will include tests for moisture, protein, calcium and phosphorous plus fibre, nitrate and pH on specific roughages.

Additional special analyses are available for soil, feed and plant materials at a cost of \$3 per analysis when they are done in combination with a standard test.

Special analyses are frequently needed to provide the additional information that is required to solve production problems and for the more effective use of farm resources.

Recommendations for soil fertility adjustments and livestock ration formulation will continue to be part of the standard analysis when the necessary information is provided with the sample.

Further information can be obtained from district agriculturists.

- 30 -

FOR IMMEDIATE RELEASE

GRASS-ALFALFA PASTURE MIXTURES AND THE RISK OF BLOAT

Because of the current cost of nitrogen fertilizers, more and more farmers are becoming interested in the use of grass-alfalfa pastures for their cattle.

However, the key question with grass-alfalfa pasture mixtures is whether or not the one chosen will cause bloat. It is fairly commonly believed that a pasture that contains less than 50 per cent of alfalfa will not cause bloat, but, the fallacy here is that the proportion of alfalfa in a given field can vary widely and that it can also vary widely during one grazing season.

Peter Funk, Alberta Agriculture's district agriculturist at Red Deer, reports that research carried out at the federal research station in Saskatoon, Saskatchewan, has shown that the stage of maturity of alfalfa when it is grazed is the most important factor from the point of view of whether or not it is likely to cause bloat. The researchers have found that the risk of bloat decreases rapidly after the alfalfa has reached the late bud to early bloom growth stage.

Some people believe that rain and dew present the greatest bloat hazard for cattle on grass-alfalfa pastures. However, the presence of moisture is actually a poor indicator of the bloat risk because there are many factors that can cause bloat on a dry pasture. One of them is the rapid growth of immature alfalfa. It is associated with a high risk of bloat. Then there are such environmental factors as cool nights (0 ° to 10 ° C) and warm days (20°+ C), a good supply of soil moisture and a low evapotranspiration rate.

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- 2 -

Grass-Alfalfa Pasture Mixtures And The Risk Of Bloat (cont'd)

Since a regular feed intake is important in the control of bloat, Mr. Funk advises farmers to make sure that their cattle have had a good feed of grass hay before they are turned out for the first time on to a grass-alfalfa pasture. Unless bloat is causing a severe problem, the cattle should not be removed from the pasture once they have adapted to it. And to avoid any disruption in their feeding pattern, it is a good idea to use insecticide-impregnated eartags on cattle in areas where horn and/or face flies are a problem. It is also recommended that bloat-susceptible cattle be culled from a breeding herd because it is well established that susceptibility to bloat is a heritable trait.

Since bloat is most likely to occur in cattle that are grazing a grass-alfalfa pasture during the first flush of growth, Mr. Funk recommends having an alternative source of feed available during this period. A good long-term approach would be to have a pasture of crested wheat grass, Russian wild rye grass, Altai wild rye grass or fall rye that can be used until the grass-alfalfa pasture has had time to mature.

If bloat occurs in cattle that are grazing a lush spring grass-alfalfa pasture, they should be removed from the pasture for two to three weeks or they should be confined to a small portion of it so that they will have to eat everything in the pasture rather than being able to feed only on the lush alfalfa plants.

- 30 -

June 18, 1984

FOR IMMEDIATE RELEASE

POINTS TO CONSIDER WHEN HAVING CUSTOM WORK DONE THIS SUMMER

by Gerd Andres
Farm Business Management Branch, Olds, Alberta

Many farmers will be hiring a custom operator to do custom work on their farm this summer. What they pay will depend upon their relationship with the custom operator and how the negotiations are carried out.

Types Of Custom Operators

There are three basic types of custom operators — the good neighbor, the part-time operator and the full-time operator.

The good neighbor is a farmer who has a sizeable farm from which to make his living. He does custom work only for his neighbors, friends or relatives when he has the time or is finished his own work.

The part-time operator is usually a farmer who does not have a large enough farm to justify the amount of equipment he owns. When purchasing his equipment, he plans to do custom work to spread his machinery ownership costs and to generate extra income.

The full-time operator depends on custom work for his livelihood. He must recover all costs and make a profit to stay in business.

Custom Charges

The differences in custom rates charged among custom operators reflect to what extent their fixed costs and profits are included. Fixed costs such as housing, insurance, depreciation and investment costs occur daily, regardless of how often the machinery is used. However, the more hours a machine is used, the lower its fixed costs per hour will be.

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Points To Consider When Having Custom Work Done This Summer (cont'd)

The good neighbor usually has a complement of machinery to fit his farm size. Since the fixed costs of owning that machinery are covered by his farm, he may not be interested in recovering his custom fixed costs because his farming operation pays for them.

The part-time custom operator, on the other hand, does custom work to supplement his farm income and reduce his fixed costs. He usually budgets his fixed costs over the total use of his machinery (farm and custom work). When he sets a rate, a proportional share of his fixed costs will usually be charged to the custom rate.

The full-time operator determines his fixed costs on the basis of the number of hours he expects to work each year. He must cover all his fixed costs to stay in business. If he has a heavy work load, his fixed costs per hour on an individual machine may be the lowest of the three types of operators, but he must also account for overhead costs.

However, all three types of custom operator expect their custom rates to cover their variable costs. Variable costs are such things as fuel, lubrication, repairs and labor.

Basis For Contract Charges

Custom charges are most commonly based on either an hourly rate or on a physical unit rate. Common physical unit rates are: per bushel, per tonne, per acre and per bale.

The advantages of doing custom work on a physical unit rate are:

- The custom operator can benefit from his own efficiency.
- Both parties can better estimate what the job will cost per unit.
- There is less disagreement over the amount of time worked.

The advantages of doing custom work on an hourly rate are:

- Costs are covered if fields are small, badly shaped or terrain is poor.
- There is less disagreement about the size of area covered.
- Moving time can easily be included in the total cost of the job.

Points To Consider When Having Custom Work Done This Summer (cont'd)

The advantages of the physical unit rate are the disadvantages of the hourly rate and vice versa. Which method to use when paying or changing will depend on preference and/or negotiating skills.

Custom Farm Agreement

Custom work constitutes a business arrangement, and the agreement should clearly specify the rights and duties of the parties involved and it should preferably be in writing.

Points to consider when formulating an agreement are:

Operation - type and frequency

Timeliness - a schedule stating when work is to commence and when it is to be completed.

Rate Schedule - based on physical unit or hour.

Down-Time - who is responsible.

Termination - when notice must be given.

Liability - who is responsible for damages to property.

Management - acceptable farming practices are employed.

"Farm Machinery Costs As A Guide To Custom Rates" (Agdex 825-4); "Custom Rates Annual Survey Summary" (Agdex 825-9); "Custom Farming Agreement" (Agdex 817-10) and "What Is A Fair Charge For Custom Work?" (Agdex 825-15) contain additional information on custom rates. They can be obtained from district agriculturists, the Farm Business Management Branch, Box 2000, Olds, Alberta, T0M 1P0, or by writing to the Publications Office, Alberta Agriculture, J.G. O'Donoghue Building, 7000-113 Street, Edmonton, Alberta, T6H 5T6.

FOR IMMEDIATE RELEASE

PLANT-DERIVED INSECTICIDES

by Ulf Soehngen
Alberta Horticultural Research Center, Brooks

The co-evolution of plants and insects has provided an extremely complex, but fascinating conglomeration of chemical interactions.

Some insects, for example, have evolved into types that respond to certain chemicals in plants which act as stimulants to oviposition or feeding. On the other hand, some plants have developed a variety of compounds that act as a defence against insect predators. These compounds may be toxic or act as a repellent or discourage insects from feeding. They may even change the physiology and/or behavior of insects.

The latter group of compounds, often referred to as insect growth regulators, have come to the fore in recent years, not only from the academic point of view, but also from the point of view of developing insecticides that influence the development and maturation of specific insect pests over a period of time.

There is no doubt that the earliest insecticidal compounds were derived from plants. The idea probably came from observing plants that were not infested by insects, and it could even have been observed that these plants had a toxic effect on the insects.

An extract from the dried flowers of the chrysanthemum has been used as an insecticide since ancient times. When refined, this extract provides several related insecticidal compounds, called analogs, the most toxic of which is pyrethrin.

The toxicity of pyrethrin to insects is greatly increased by its interaction with the so-called synergists. These are compounds which, although not toxic in themselves, increase the insecticidal properties of some pesticides. Two such synergists, sesamin and sesamol, are found in sesame oil. Sesamin is also found in the natural pyrethrum extract, all of which shows the complexity of a plant's defences against insect attacks.

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Plant-Derived Insecticides (cont'd)

The insecticidal properties of tobacco are well known. In fact, European references from as early as 1690 point to the use of this plant as an insecticide. Its active ingredient, nicotine, is found at levels of up to 6 per cent, and it occurs in a variety of other plants at levels of up to 18 per cent. The deadly nightshade, milkweed, horsetail and club moss are among the plants in which it occurs. Related alkaloids such as nornicotine and anabasine, have also been found in a variety of plants and have been used as insecticides.

The rotenoids constitute another naturally-occurring group of plant-derived insecticides. And extracts from some of these plant species have been used in various parts of the world for centuries to kill fish and to provide the poison for spear and arrow points as well as for insecticides. Their special value as an insecticide is that they leave no residue.

However, of all the groups of naturally-occurring plant-derived insecticides, only the pyrethrin group has stood the test of time. The study of this group has produced more efficient uses of pyrethrin and resulted in the development of the very effective pyrethroid analogs.

Nicotine is used only as a smoke fumigator. It is not used in any other form because of its toxicity to nontarget organisms.

And the chemical complexity of the rotenoids has precluded, to some degree, the development of synthetic analogs. However, rotenone is still used to a very small degree to control insects in home gardens and as a spot treatment in commercial crop production when a residue of zero is required the following day. It is possible that research and crop breeding to develop plant strains that show a greater degree of resistance to pest insects will become a reality one day. Even though research in this area is slow, it is potentially extremely rewarding.

June 18, 1984

FOR IMMEDIATE RELEASE

LENGTH OF STORAGE TIME FOR FROZEN BEEF

The length of time that beef may be stored in a home freezer depends upon the cut and the quality of the meat, the type of wrapping used and the storage temperature.

Betty-Anne Carey, processed food consultant with Alberta Agriculture, says that large, thick cuts of meat may be stored longer than small pieces. The latter tend to dry out and to develop an off-flavor. Ms. Carey recommends re-wrapping beef in aluminum freezer foil (special heavy duty), laminated coated freezer paper or polyethylene plastic before freezing it, because the film used by supermarkets is not moisture proof or vapor-proof. Consequently, it does not prevent the meat from drying out or from developing freezer-burn.

Beef that is properly wrapped and stored at a temperature of -18 ° C may be safely stored for the following time.

Beef steaks and roasts	10 - 12 months
Casseroles and stews	3 months
Ground beef	2 - 3 months
Beef pies and meat sauces	2 months

Beef that is stored for longer than the above times is still safe to eat, says Ms. Carey, but its flavor will start to deteriorate.

- 30 -

June 18, 1984

FOR IMMEDIATE RELEASE

MARKETING DIRECTOR APPOINTED

Lou Normand, senior trade director, market development division, Alberta Agriculture, has announced the appointment of Bryan D. Walton to the position of Marketing Director, Alberta. Mr. Walton, who will have his headquarters in Edmonton, will work with Associate Marketing Director, Susan Kitchen, located in the Calgary office.

Mr. Walton will be responsible for programs designed to encourage market development and sales of Alberta agricultural commodities and processed products in the province. He and Mrs. Kitchen will continue to work with producers, processors and other organizations to ensure that market development programs best meet the needs of the industry.

Mr. Walton has been an associate International Trade Director with the Market Development Division since 1982. Mrs. Kitchen, responsible for market development in Alberta since 1982, will continue her role in program development.

- 30 -

AGRI-NEWS

June 25, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Post-Weaning Gains And Heifer Reproduction	1
The Importance Of The Calving Interval In A Cow Herd.	3
Public Reception Of Pesticide Needs Changing	4
Hog Producers And Veterinarians	6
Selecting The Right Software For Your Microcomputer	8
Computerized Engineering Services.	10
Farmer's Lung.	12
The Goat Herd Sire	14
Food Safety	17
Director Of Dairy Division Appointed.	19
Regional Food And Nutrition Specialist Appointed	20

Phone: (403) 427-2121

Alberta
AGRICULTURE
Print Media Branch

June 25, 1984

1

FOR IMMEDIATE RELEASE

POST-WEANING GAINS AND HEIFER REPRODUCTION

A number of experiments have been reported lately that discuss the effect of various feeding levels on the reproduction and subsequent performance of beef heifers.

According to Ross Gould, Alberta Agriculture's beef cattle specialist, researchers at the Meat Animal Research Centre at Clay Centre, Nebraska, U.S.A. have found that even moderate underfeeding or moderate overfeeding during a heifer's post-weaning period can have a prolonged influence on her reproductive and subsequent performance. They also found that the age at which heifers from the various beef breeds reach puberty differs widely, and that their later reproductive performance differs under different levels of feeding.

In one experiment more than 400 head of Angus, Hereford, Red Poll, Charolais, Brown Swiss and Simmental heifers were divided into groups and fed to gain 0.9, 1.3 and 1.9 pounds per day during a 184-day winter feeding period. The researchers found that the dual purpose Red Poll, Brown Swiss and Simmental heifers reached puberty earlier when they were fed to produce the high gains, while the more traditional beef breeds reached puberty earlier when they were fed to produce medium gains.

The dual purpose heifers also tended to reach puberty earlier than the traditional breed heifers. The Brown Swiss, Simmental and Red Poll heifers averaged 317, 348 and 355 days to puberty respectively, compared with 388 for the Charolais, 410 for the Angus and 429 for the Herefords.

When the heifers were pregnancy tested after their first breeding season, all the groups except the Herefords had conception rates of 91 per cent or better. The Hereford group had a conception rate of 85.8 per cent, and the researchers felt the lower rate may have been due to the fact that they reached puberty later than the other breeds. After the

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Post-Weaning Gains And Heifer Reproduction (cont'd)

second breeding season, the conception rates for the Brown Swiss and the Simmental heifers were 81 and 79 per cent respectively. However, the conception rates for all the other breeds ranged from 88 to 96 per cent.

The heifers that had been fed to gain 1.3 pounds per day after weaning produced 14 per cent more milk 62 days after calving than the animals that had been fed for the higher gains and 11 per cent more milk 104 days after calving. However, the researchers reported little difference in the milk production of the three feed groups after five months of milking.

As would be expected the difference in the level of milk production among the three groups was reflected in the mid-season and weaning weights of their calves. The medium fed group weaned calves that averaged 3 per cent heavier than those from the heifers that had been fed for low and high post-weaning gains. Of particular interest was the fact that the heifers that had been fed to gain 1.8 pounds per day after they had been weaned raised calves that were 22 pounds, or 5 per cent, lighter than those from the heifers that had been fed to gain 1.3 pounds per day. It is believed that the heavier gains resulted in more fat being deposited in the animals' udders, thereby interfering with their milk production.

June 25, 1984

FOR IMMEDIATE RELEASE

THE IMPORTANCE OF THE CALVING
INTERVAL IN A COW HERD

The calving interval, which is the number of days between two successive calvings, is a good measure of a cow's fertility.

According to an article by Sandra Gabler of Agriculture Canada that was published in Alberta Agriculture's Beef Performance Bulletin, a cattleman who looks at the calving intervals of his cows may find that only a few have a long calving interval, or he may find that the majority have a long calving interval. In the first case, the situation is probably being caused by problem breeders in the herd, while in the second, it is probably being caused by a general management problem, a subfertile bull or both.

Ms. Gabler points out in her article that the length of a calving interval as a heritable trait is very low. In fact, it is only about 10 per cent heritable, which means that 90 per cent of the variation in calving intervals in a cow herd is a product of management and such environmental factors as animal health and nutrition. This being the case, says Ms. Gabler, selecting cows with a short calving interval, in an attempt to improve the fertility level of future generations of cows, will not work.

She also says that constant culling and a high level of management are the only effective ways of improving and maintaining calving intervals at an acceptable level.

Information on ways of decreasing calving intervals and maintaining them at an acceptable level can be obtained from Chuck Huedepohl, Editor, Alberta Beef Performance Bulletin, Animal Industry Division, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-5085).

- 30 -

FOR IMMEDIATE RELEASE

PUBLIC RECEPTION OF PESTICIDE NEEDS CHANGING

by Dr. Moe Hussain
Pesticide Issues Coordinator, Alberta Agriculture

The public has the wrong perception of pesticides as a major cause of death, cancer and other diseases. This finding has been revealed in several scientific publications.

A recent survey in the United States indicates that college students perceive pesticides to be number four as the major cause of death among the 30 products and activities that were rated. In actual fact, however, pesticides rank number 28! Alcohol, automobiles, handguns, electricity and motorcycles are among the top contributions to death. The survey was reported in "Scientific American", a world-renowned U.S. magazine.

On the question of pesticides as one of the main causes of cancer, an article in the periodical, "Environment", indicates that, although there is an increase in cancer deaths, pesticides and environmental pollutants are not the principal causes. The article points to cigarette smoking, and the fact that more women are now smokers, as a major contributor to the increase in cancer deaths. Another factor is that most infectious diseases such as scarlet fever, dysentery, tuberculosis, diphtheria and typhoid fever have been greatly reduced. Thus, most people live to an older age and, therefore, have a greater chance of developing cancer. The article cites environmental agents such as sunlight and natural chemicals in foods along with occupational exposure to chemicals and radiation as the other major causes of cancer. Pollution of air, food and water by man-made chemicals does not appear to be a major cause of cancer for the general population, despite the popular belief to the contrary.

Most other diseases also occur as a result of advancing age rather than because of pesticides and pollutants. Among them, arterial diseases account for nearly half of all deaths

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Public Reception Of Pesticide Needs Changing (cont'd)

in the U.S. These diseases develop naturally as the body goes through the aging process and may be influenced by the same natural environmental factors that are responsible for cancer.

However, people have a very different attitude towards arteriosclerosis, for example, than they have towards cancer. For some reason heart attacks and strokes tend to be looked upon as the natural phenomena of old age, and are, therefore, acceptable. Cancer, on the other hand, is thought to be induced by man-made products despite evidence to the contrary, and is therefore, considered unnatural and unacceptable.

To rectify this situation, the public's perception of pesticides needs to be changed so that it more accurately reflects the facts that have been established by scientific research.

FOR IMMEDIATE RELEASE

HOG PRODUCERS AND VETERINARIANS

by Dr. Leo B. Abenes
Regional Swine Specialist, Alberta Agriculture, Red Deer

In the course of many of my farm visits, I am often asked about swine diseases and medications. Not being a veterinarian, I cannot make a diagnosis or recommend a course of veterinary treatment. Instead, I suggest that the farmer refer his problem to a veterinarian.

"The vet? I never send for him — too expensive and worthless!" This attitude prevails on more farms than most veterinarians would like to admit. The consequence is that, when the grudging call is finally made, it is often too late for a satisfactory outcome — the piglets are dead, the scouring weaners are beyond the point of no return and the sow with mastitis has turned a delicate shade of purple and is past recovery. So the farmer's belief is confirmed — not only is the vet too costly but he is also no good.

Fortunately, there are signs of a new and more enlightened attitude beginning to prevail among the more advanced hog producers. With costs of production at such a high level, they are beginning to realize that an early call to save even a single piglet is enough to pay for the vet's visit or that an improvement of only one per cent in feed efficiency in all the market hogs will pay for his services for a whole year.

There are, in fact, a group of hog producers in Alberta who are asking veterinarians to play a central role in their swine production units. Such veterinarians are still available for any emergency or acute disease outbreak, while at the same time, they are earning their fees as the organizer of a comprehensive disease control program.

The fact is that a large proportion of pig diseases is often not clinically obvious and, even when the diseases are apparent, it is not always easy to make a spot evaluation in economic terms.

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Hog Producers And Veterinarians (cont'd)

Most diseases which cause losses on pig farms today are of the "multi-component" type. They are multi-component not only in the sense that there may be several environmental factors contributing to the situation, but also because there are often two, three or more infectious agents involved. Hence, one has to decide which of the various contributing factors can be modified to produce the desired effect. Is it temperature, ventilation, hygiene, method of feeding or the infection itself? Which one is the most cost-effective to solve?

These factors can be assessed more intelligently through the use of a regular veterinary service. The veterinarian can then become thoroughly familiar with the herd and its performance records on a continuing basis. And the information he derives from monitoring the herd will enable him to identify the problem areas that can be solved economically!

This is the key — economics — because technical advice given without regard to the financial aspect of the operation is virtually useless. A veterinarian can only give good technical advice when he is in a position to evaluate the economic components of the case. And he can only do this when he is thoroughly familiar with the herd's performance records on a continuing basis.

As long as a veterinarian is called in only on sporadic occasions, and only in emergency situations, his value to a hog producer will indeed remain very minimal, and, at the same time, be very costly.

June 25, 1984

FOR IMMEDIATE RELEASE

SELECTING THE RIGHT SOFTWARE FOR YOUR MICROCOMPUTER

Although a considerable number of Alberta farmers are using microcomputer technology, there are still many who feel bewildered and intimidated by the wide variety of microcomputers and microcomputer programs on the market today.

Microcomputers are particularly well-suited to doing simple repetitive tasks quickly and accurately. And they are especially good at spotting problem situations. However, according to George Maicher of Alberta Agriculture's farm business management branch, a farmer, his staff or his family must be interested in what a microcomputer can do for it to be successfully used on a farm, and they must be prepared to put up with the initial problems and frustrations that will almost inevitably occur while they are setting up the system. He says the difficulties can be minimized by purchasing a microcomputer from a company that provides good instructions, and that will also provide good back-up facilities, and by carefully choosing the program.

Mr. Maicher points out that the programs, called software in the computer trade, are, and will continue to be, the key elements in the successful use of a microcomputer. He says the software that is used for accounting and bookkeeping, for example, comes in a variety of programs. There are those that have been specifically developed for agricultural use, those developed for regular business and adapted for agricultural use and those that have a more universal application.

The acquisition of a microcomputer for the exclusive purpose of accounting may be hard to justify on most farms, but, fortunately, most computer software is very versatile and can be used for such additional tasks as keeping records, budgeting, helping to forecast the cash flow, typing (word processing) and even to educate the children and entertain the family.

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Selecting The Right Software For Your Microcomputer (cont'd)

Mr. Maicher admits that deciding which of the many available programs will be best for a particular farm situation can be a formidable task, and one that is further complicated by the new terminology and new concepts that farmers must learn. But he believes the task can be considerably simplified if a prospective buyer:

- Determines his reasons for changing to a new accounting system.
- Determines what he expects the new system to accomplish.
- Determines the minimum requirements the system must possess for it to be considered.
- Determines how many available programs fit those requirements.
- Deletes the programs that do not meet the minimum requirements.
- Selects the best remaining program.

Making an informed choice from among the many different programs available will take a substantial amount of time. However, the time spent in making the correct purchase is negligible compared with the time that would be lost if another program had to be purchased and learned because the first one proved to be inadequate.

“How to Select the Right Farm Accounting Software for Your Microcomputer” (Agdex 818-22) was developed by the farm business management branch to help farmers to choose the most appropriate program for their individual needs. It can be obtained from district agriculturists, by writing to the Publications Office, Alberta Agriculture, 7000-113 Street, Edmonton, Alberta, T6H 5T6 or by writing to the Farm Business Management Branch, Alberta Agriculture, Box 2000, Olds, Alberta, T0M 1P0.

June 25, 1984

FOR IMMEDIATE RELEASE

COMPUTERIZED ENGINEERING SERVICES

The Alternate Energy Cost Analysis Program is one of 12 computerized planning programs being provided by Alberta Agriculture's engineering resource branch to help farmers to plan, design and manage their agricultural systems and to minimize barn and home heating costs.

The Alternate Energy Cost Analysis Program allows the user to choose the cheapest fuel for his particular situation by comparing the cost of his present fuel with any of the six available fuels -- natural gas, propane, heating oil, wood, coal and electricity. It indicates which fuel would be cheapest for him at his present level of annual use. And it provides the fixed and variable costs that he is incurring for the fuel he is using and for the fuel he is considering.

The other computerized programs that are available to Alberta farmers, free of charge, are:

The Truss Design Program which calculates the construction details for designing clear span single or double sloped gable roof trusses.

The Ventilation Design Program which calculates the heating and ventilating requirements for several types of livestock buildings.

The Farm Building Cost Analysis Program which estimates the cost of constructing a farm building and provides a partial list of materials and labor requirements.

The Grain Dryer Performance Program which estimates the bushel per hour capacity and associated costs for drying grain. The analysis may also be used to size a dryer for a particular combine capacity or to determine the control settings required to minimize cost.

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Computerized Engineering Services (cont'd)

The Analysis of Grain Harvesting and Drying Systems Program which compares and evaluates various grain harvesting and drying alternatives. By using identical daily weather patterns, it compares the effects of different types, sizes and numbers of machines upon the cost of the total harvesting system.

The Energy Analysis in Farm Houses Program which computes the heat loss from a house and analyzes nine energy saving actions that can be taken.

The Building Environmental Control Analysis and Design Program which estimates the inside temperature and relative humidity in livestock buildings and greenhouses by considering the building design, the heat and moisture load from the livestock or plants and solar radiation. The program can also be used to design the ventilating and heating systems for a building and to predict its annual energy consumption.

The Annual Home Heating Requirements Program which estimates the annual cost of heating a house and determines the cost effectiveness of retrofitting.

The Water Analysis Interpretation Program which interprets the chemical water analysis report that it is used by Alberta Agriculture's toxicology laboratory. It also recommends treatment for farm water supplies based on the water source, the water use and present treatment practices.

The Dugout Program which calculates the volume of water and the amount of copper sulphate required to control algae growth in various depths of water in a dugout.

The Lagoon Sizing Program which calculates the size of lagoon required to store animal waste material for a given period of time.

More details on the above programs are contained in a publication entitled "Computerized Engineering Services" (FS 700 - 1). It is available from district offices and the Publications Office, Alberta Agriculture, 7000-113 Street, Edmonton, Alberta, T6H 5T6.

June 25, 1984

FOR IMMEDIATE RELEASE

FARMER'S LUNG

Have you heard of farmer's lung? Do you know what it is and how you can avoid it?

Farmer's lung is a respiratory disease that is caused by a person breathing millions of tiny mold spores or fine grain dust particles into his lungs. Anybody who has worked with moldy hay or grain dust for many years without having taken precautions could be well on his way to contracting farmer's lung. A person who has this condition will cough and bring up mucus every time he is exposed to moldy hay or grain dust for even a few hours. Fever, periodic chills and shortness of breath are other typical symptoms. In severe cases of farmer's lung, it is not unusual to have tightness and pain in the chest. There are medications that will help to ease chest pains, but they will not cure the condition.

Many people who have the above symptoms think they have chronic bronchitis, emphysema or even lung cancer, but in actual fact they have become allergic to mold spores and/or grain dust. They will always be prone to the condition, which often eventually prevents its victims from doing hard work and may even kill them.

However, it is important to remember that it is not the hay that causes the problem; it is the mold or fungus spores on the hay that causes it. And it is important to remember that the problem will be intensified when animals are fed in a poorly ventilated area. A person who suffers from farmer's lung will notice that he is especially bad in the winter when feeding is usually done in an enclosed area, and because hay mold is particularly prevalent.

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Farmer's Lung (cont'd)

How can farmer's lung be avoided? According to Phil Dixon, district agriculturist at Rocky Mountain House, there are inexpensive masks on the market which will greatly reduce a farmer's chances of getting this condition. Mr. Dixon was told by a member of the Safety Supply Canada Company in Red Deer that Model 8500 and Model 8710 are highly recommended for preventing exposure to mold spores and fine grain dust particles. Model 8500 is called a "Non-Toxic Particle Mask" and comes in boxes of 50 which cost \$23, while Model 8710 is called a "Toxic Particle Mask" and comes in boxes of 20 which cost \$33. A good farm supply outlet should have, or be able to get, these masks.

Mr. Dixon points out that particle masks must not be confused with masks that protect people against poisonous gasses or masks that are designed to protect them against oxygen deficiency. He stresses that the different types are not interchangeable. And remember that a person who comes in contact with moldy hay and/or fine grain dust on a regular basis must wear a particle mask if he wants to avoid eventually contracting farmer's lung.

June 25, 1984

FOR IMMEDIATE RELEASE

THE GOAT HERD SIRE

by Dr. C. Schipper
Animal Health Division, Alberta Agriculture

There are many things a goat keeper can do to help a buck reach his best level of performance.

First, anybody who is seriously interested in goats for milk or meat production will buy or raise a buck of proven genetic value, based on records of performance. Selecting bucks for good looks or for emotional reasons can result in a generation of scrub bucks.

Because of the peculiar intersex problem (hermaphrodism) which may occur among the offspring of polled males and polled females, it is recommended that only horned or disbudded bucks be used for breeding polled does. Polled bucks are often infertile because they have smaller and softer than normal testicles.

Goats are seasonal breeders. The does generally do not come into heat from late winter until late summer, and normal bucks tend to become infertile during the warm summer months. However, if a goat herd is well fed and well managed, and the weather co-operates, the breeding period may be extended somewhat, perhaps from early August to late April.

Most normal looking bucks under proper management are good breeders during the mating season. A well developed scrotum containing two large healthy testicles are essential for good fertility. Bucks should also be in good general health and on good nutrition. Sometimes genetically superior animals are poor breeders because of mounting difficulties, due to creaking painful joints. They could be affected by nutritional deficiencies or excesses, joint diseases or old age.

A number of goat keepers consider the buck indispensable for breeding purposes,

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The Goat Herd Sire (cont'd)

but not much good for anything else. We often find him locked away in a small pen by himself, in an area where his odor is least objectionable. That is far away from the does and from human noses. During the off season his ration often consists of some hay and plenty of weeds. Unfortunately, without adequate nutrition, suitable exercise or other activity, the herd sire becomes bored. He may develop undesirable habits and a nasty personality. Sheep research has shown that feed quality (energy content) can have a marked influence on testicle size and sperm production in rams. The application of these findings to goats could explain why poor conception rates are seen when poorly fed bucks are used for breeding.

An improperly managed buck turned out with a large group of willing does might find his assignment a bit frustrating. At first he is likely to be as happy as the proverbial cat in the creamery. However, after a few days of unmitigated joy and licentious promiscuity, such a buck appears to lose interest. He prefers to hang around with one or two favorite females and totally ignores the other estrous does.

Turning out another buck to help the first one along does not improve matters at all. The two males will soon become so busy fighting and competing with each other that they completely forget the job at hand.

Good management of the herd is essential for obtaining good service from a buck. He needs to receive at least one pound of grain every day for three weeks prior to and during his busy season. He also needs plenty of exercise on a year-round basis. Moreover a buck should be kept separated from, but in full view of, the doe herd during the breeding season. The sight, sound and odor of the buck helps prepare the does for service. Receptive does should be exposed to the buck on an individual basis (hand breeding) for best results.

Breeding records are essential to monitor returns to service and to establish accurate kidding dates. Semen analysis of the buck should be carried out when the "returns

- (cont'd) -

The Goat Herd Sire (cont'd)

to service'' figure becomes too high. Knowledge of kidding dates enables a goat keeper to regulate milk production on a yearly basis and to avoid pregnancy toxemia in the later stages of pregnancy.

The prerequisite for handling a goat sire and his harem effectively is the possession of, or the development of, a sincere liking for goats. Good common sense management can turn any properly set up goat enterprise into a profitable venture under today's marketing conditions.

FOR IMMEDIATE RELEASE

FOOD SAFETY

by Lawrence Roth
Food Laboratory, Alberta Agriculture

How does food poisoning occur?

The term food poisoning generally refers to illness caused by food-borne viruses, bacteria or molds. These illnesses can be classified into two main categories: infection and toxemia. A food-borne infection results from eating food which contains living pathogenic microorganisms that may have grown in the food. Once the food is eaten, the organisms grow and multiply in the intestinal system and bring about illness. Salmonellosis is an example of a food-borne infection.

Food intoxication is caused by eating food that contains a toxin or poison that was produced by microorganisms growing in the food. These bacteria in themselves are usually not harmful if eaten in moderate amounts. Staphylococci is an example of a toxin producing bacterium.

What foods are potentially unsafe and what foods are usually safe?

Potentially unsafe foods are those in which food poisoning bacteria are able to grow unless the product is held at a high temperature or properly refrigerated. Examples are raw or cooked meat; poultry and fish; processed meats (bologna, wieners, ham, etc.); cooked vegetables; custards, puddings, whipped cream, milk and milk products; shellfish; dressings, gravies and sauces; meat sandwich spreads, and open canned meats.

Some foods may be safely stored at room temperature because their composition (e.g. low water content, high acid, high sugar) or packaging precludes the growth of or contamination by bacteria. Examples of such foods are nuts and peanut butter; bread, crackers, cookies and cake; jam, honey syrup and candy; butter margarine and cooking oil; dry cereals and

- (cont'd) -

Food Safety (cont'd)

powdered milk; raw and dry fruit; raw vegetables; pickles, relishes, mustard and catsup; cheeses; canned meat and fish before opened.

What are the signs of spoilage in canned products?

Bulging ends or sides of an unopened can are an indication of possible spoilage. Sometimes the pressure inside the can is great enough to cause a seam to burst and allow the product to leak out. Also, if there has been spoilage with a resulting pressure increase, the can's contents may spurt out when it is opened. The appearance and color of the product may also indicate spoilage. A bubbly, off-color or off-flavor product is indicative of spoilage.

Is it safe to refreeze thawed food?

It is safe to refreeze a thawed product, but only if you know the temperature of the product during and after its thawing period. If the temperature of any portion of it was elevated for a long enough period, microorganisms may have grown sufficiently in the product to create a hazardous situation, which is not eliminated by freezing. As a general guide, food should not be frozen if its temperature has risen above 4° C for more than two hours or if it has been held at a refrigerator temperature for more than two days. Food that shows any off-odor or off-flavor should not be refrozen.

Food contamination can be minimized during the preparation by using good personal hygiene and ensuring that all utensils are clean. Kitchen equipment should be well scrubbed to prevent cross-contamination between raw and cooked foods.

A practical way of preventing the growth of microorganisms is to control the temperature of food, paying particular attention to the danger zone of 4° C - 60° C. Food should not be held between 4° C and 60° C for more than four hours. The preparation period for working with food at room temperature should not exceed two hours at any one time. Hot food should be cooled rapidly before being refrigerated, and a large quantity of food should be spread out in shallow pans to aid the cooling process.

June 25, 1984

FOR IMMEDIATE RELEASE

DIRECTOR OF DAIRY DIVISION APPOINTED

Alberta Agriculture's assistant deputy minister of the production sector, H.M. Douglas, has announced the appointment of Charles McNaughton to the position of director of the dairy division. His appointment becomes effective on July 16.

Mr. McNaughton's 16 years of service with the Manitoba Department of Agriculture includes the positions of director and assistant director of the animal industry branch, chief of the dairy division and provincial dairy specialist. Prior to his employment by the Manitoba government, he was assistant professor in the University of Manitoba's Department of Dairy Science and associate professor and head of its Microbiology Unit.

Mr. McNaughton grew up on a dairy farm in Saskatchewan and has a B.Sc. from the University of Saskatchewan and an M.Sc. and Certificate of Public Administration from the University of Manitoba. He has served as Western Canada's representative on the Secretariat to the Canadian Milk Supply Management Committee; the Expert Committee of the International Dairy Federation; the Standards Committee of the National Liaison Group on Milk Quality of the Canada Committee on Animal Production and as secretary of the Manitoba Dairy Board.

- 30 -

June 25, 1984

FOR IMMEDIATE RELEASE

REGIONAL FOOD AND NUTRITION SPECIALIST APPOINTED

Shirley Myers, head of Alberta Agriculture's home economics branch, has announced the appointment of Diane Bourne to the position of regional food and nutrition specialist.

In her new position Ms. Bourne will administer regional educational programs which provide information on nutrition education, consumer education, research results on food products, food trends and nutrition and food selection. She will also provide leadership and direction in the foods and nutrition programs in the northern part of the province.

Ms. Bourne was born and raised in Calgary. She joined Alberta Agriculture as a district home economist in-training in Camrose in 1975 and has served as district home economist in Sedgewick from 1976 until now.

She graduated from the University of Alberta in 1975 with a B.Sc. (home economics), having majored in foods and nutrition. Prior to joining Alberta Agriculture she spent six months working on a sheep farm in New Zealand under the International Agricultural Exchange Association Program.

- 30 -

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July 2, 1984
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July 2, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

The Purebred Cattle Breeder And Crossbreeding	1
Copper Poisoning In Sheep	3
The Role Of Agricultural Statistics	5
What Makes A Good Farm Manager	7
Agricultural Computing Reference Publication	9
Buffers And Butterfat Tests	10
Radial Tires For Agricultural Tractors.	12
1984 Sclerotinia Check List	14
Recycling Clay And Plastic Flower Pots	18
Branch Head Of Food Processing Development Center Appointed	20
Coming Agricultural Events.	21

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AGRICULTURE
Print Media Branch

July 2, 1984

FOR IMMEDIATE RELEASE

THE PUREBRED CATTLE BREEDER AND CROSSBREEDING

by Judd Bunnage
Beef Cattle Breeding Section, Alberta Agriculture

Should purebred cattle breeders promote crossbreeding? Although those in the purebred industry argued against crossbreeding for quite a while after it started, it is an accepted and valuable breeding technique today.

The question is how can a purebred cattle breeder take advantage of this advanced technique? It is obvious to me that no one breed or combination of breeds is perfect for every environment or for every type of management. For this reason cattle breeders need to have a crossbreeding program that is tailored to their particular operation, but, because some cattlemen will not go to all the trouble of selecting their breeds carefully, a few generalizations are in order.

It is true that cattle breeds are by no means uniform in their expression of traits, but they do show some trends that can be helpful when a person is trying to decide which breed to use in a particular situation. In fact, most breeds have a few traits that can be considered beneficial, or which are superior to those of other breeds, but, unfortunately, they also have some traits that are not desirable in most situations. There is one prominent breed in Alberta, for example, that is noted for its high milk production and resulting heavy calf weaning weights. These animals also have a good rate of growth in the feedlot and produce a fine carcass. However, they are a little harder to fatten than animals from some of the other breeds and the cows are harder to get in calf without superior management than those from some of the less productive breeds. Because of these factors, it would seem logical that this particular breed would be out of place on a farm where the grazing is poor or on a farm devoted to stocker production.

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The Purebred Cattle Breeder And Crossbreeding (cont'd)

However, a purebred breeder should not despair because his particular breed is not perfect. Instead he should frankly appraise its assets and liabilities and share this knowledge with his prospective customers. He should also try to find out which other breeds combine well with his from the point of view of compensating for their defects.

Even if a purebred breeder is able to determine what his customer needs, he will be hard pressed to fit him with a bull unless he, the breeder, has had his herd performance tested. How can a breeder help a customer who wants a bull that will raise the milk production level of his heifers unless he knows which of his bulls come from cows that consistently wean the heaviest calves? There are a number of performance testing programs available, the majority of which are similar.

A purebred cattle breeder should also be familiar with the various crossbreeding systems that are available. It could be that his breed fits best into a particular system, and if he wants to sell his customer more stock in the future, he should be able to tell him how he can get the most from the animals he is buying by using them in a crossbreeding system that the breeder has learned works the best.

The point I wish to make is that purebred cattle breeders will make far better use of their talents if they stop fighting the other breeds, and crossbreeding in general, and find out how their cattle can best be used within the various crossbreeding systems and which breed combination is best. I do not believe that the purebred cattle industry has the right to try to lead the cattle industry. In my opinion, it should respond to the trends that are dictated by the market place. If purebred breeders are to continue to be the main source of breeding stock (primarily bulls) for the commercial cattleman, they are going to have to produce the kind of cattle the commercial cattleman needs. Otherwise the commercial cattle industry will produce their own breeding stock as is already starting to happen in a small way. A well-coordinated cattle industry in which all the parts work to support the production of beef will help to keep the industry healthy.

July 2, 1984

FOR IMMEDIATE RELEASE

COPPER POISONING IN SHEEP

Alberta sheep producers would be wise to consult an animal nutritionist before making up a feed ration for their sheep.

This advice comes from Dr. A.W. Perry of Alberta Agriculture's animal disease section who believes that copper poisoning could become an increasing problem in sheep because they are sometimes fed cattle rations that have been supplemented with copper. This element is now being added to an increasing proportion of cattle feeds in Alberta because it has been found that some of these feeds contain lower than the optimum level of copper for cattle.

Dr. Perry reports that chronic copper poisoning was diagnosed in three sheep flocks in central Alberta last summer, and that the problem in the three cases appeared to have been caused by an excessive amount of copper in a concentrate that was being fed. Losses were heavy in all the flocks.

Dr. Perry is worried about copper poisoning in sheep because many sheepmen do not know that copper is being added to cattle feed and because they do not know that sheep are more susceptible to copper poisoning than other animal species.

He says chronic copper poisoning has two distinct phases. In the first, the copper accumulates in the animal's liver and there are no clinical signs of anything being wrong. In the second, the sheep suddenly stop eating, become very depressed and are either found dead or die within a few days of the onset of symptoms. Dr. Perry says the mortality rate in sheep showing clinical signs of copper poisoning is normally nearly 100 per cent.

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- 2 -

Copper Poisoning In Sheep (cont'd)

Since the symptoms of copper poisoning are similar to those of other conditions and diseases, anyone who suspects that his flock may be suffering from it should consult his veterinarian who will confirm his diagnosis with a laboratory analysis.

And anyone who thinks that his flock may need a copper supplement should contact an animal nutritionist, a sheep specialist or a veterinarian to confirm that the supplement is needed and to make sure that the correct level is added. The correct level will be influenced by the other nutrients that are in the ration.

- 30 -

July 2, 1984

5

FOR IMMEDIATE RELEASE

THE ROLE OF AGRICULTURAL STATISTICS

Some farmers and ranchers, who are among the most important sources of agricultural statistics, erroneously believe that it is not in their best interests to provide this information.

It seems that they often blame the release of agricultural statistics for rises and falls in prices. Chuck Sterling, head of Alberta Agriculture's statistics branch, points out that the function of agricultural statistics is to serve as a monitor of what is actually taking place in food production, marketing and consumption. "Statistics," he says, "are no more responsible for the situation they describe than a thermometer is responsible for the temperature it registers."

If prices rise or fall in response to the release of agriculture statistics, the information in the release was not fully known by those in the market place. Mr. Sterling explains that the change in prices occurs to reflect more accurately the true market situation. Without such information, there would be greater uncertainty in the market, which would be accompanied by more violent price fluctuations.

It is true that because agricultural statistics are available to anybody who wants them, they are helpful to agri-business as well as to producers. However, it is the producers who derive the most benefit. Most agricultural producers do not have access to the kind of information provided by agricultural statistics, whereas most agri-business firms can and do have the resources necessary to make their own assessments. Larger companies, for example, have buyers and agents who provide them with information on anticipated future livestock and grain supplies. The existence of a public monitoring system puts everybody involved in the food industry on a more or less equal footing.

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Alberta
AGRICULTURE
Print Media Branch

The Role Of Agricultural Statistics (cont'd)

Mr. Sterling stresses that to be of any use, agricultural statistics must be accurate and that they can only be as accurate as the information provided. If they are not accurate, the wrong conclusions are likely to be drawn and the action taken would not be in the best interests of anybody.

FOR IMMEDIATE RELEASE

WHAT MAKES A GOOD FARM MANAGER
by Andy Birch, District Agriculturist, Stettler, Alberta

It has been said that there is nothing like a good recession to separate the men from the boys when it comes to management. And an ancient Chinese proverb says "Adversity is a time of great opportunity!"

In times of market uncertainty, volatile and erratic price movements and increasing costs, there is a greater need than ever for basic, sound management decisions and practices. I once heard a university professor say that during the inflationary 1970's even a poor and incompetent manager could and did make "big bucks" by selling his appreciated land holdings. He may have been struggling to survive as a farmer, but he became an "instant" millionaire when he sold his land. Today it is a very different ball game. The challenges to farm managers are greater, the risks are higher and the opportunities to grow and develop as a farm manager have never been more exciting!

So what then are the qualities of a successful farm manager? Before answering that question, I should explain what is meant by management, what it entails and why it is so important. Stated simply, management is the organization and co-ordination of scarce resources (land, labor, capital) in a way that will achieve the greatest possible returns. A farm manager must make decisions about what to produce, how much to produce, when to produce it and the most effective method of production, etc. His area of activities can be described as technical (production technology), commercial (marketing), financial (capital), and accounting (record keeping).

Clearly farm management is an art! It includes planning, organizing, controlling, motivating, staffing, communicating and various other functions. And a successful farm manager sets specific goals and objectives, which give purpose and direction to his decisions and actions. One goal might be to get a 40-bushel per acre crop of canola, while another might be to achieve a 90 per cent or better calf crop each year. Still another might be to farm an extra 500-1000 acres within three years. It is important that these goals be compatible with family goals.

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What Makes A Good Farm Manager (cont'd)

A good farm manager is an opportunist. Being highly motivated, he is willing to take calculated risks and is quick to recognize opportunities and problems. He is also a decision-maker and is action-oriented. He has the ability to define a problem, gather objective facts, evaluate and analyze them, draw conclusions from the data and take the appropriate action. He also knows how to manage money wisely. He uses credit for productive inputs, but he is careful not to overcapitalize.

The management of scarce resources amidst complex problems, conflicting goals and incomplete information as well as constantly changing conditions is a major part of a farm manager's responsibilities, but there is another element which I think is very important. It is common to all successful managers and it is the human factor. A manager with this attribute has an intense love for the land. And farming to him is a life-long proposition. He has long range goals, takes his business very seriously and is proud of his occupation.

And besides his deep affection for the land, he has a keen desire for productive work, regarding working and managing as self-sustaining challenges. A high priority with such a manager is his determination to improve himself by attending relevant educational activities (meetings, courses, seminars, conferences), and by keeping up to date with local, national and international events.

In essence, there is no one quality or feature that adequately describes a top flight manager. He is a complex individual, composed of a number of traits that sustain and strengthen him. There are those people who have this ability naturally, there are those who seek and acquire it, and there are those who lack it. A top manager makes things happen, and his success is the consequence of his own resourcefulness and skill rather than luck and chance happenings. I suppose you could say he is a man in charge of his own destiny!

"Modern Agricultural Management" by Osbourne and Schneeberger and "The Farm Management Handbook" by Luening and Mortenson are recommended reading on this subject.

July 2, 1984

FOR IMMEDIATE RELEASE

AGRICULTURAL COMPUTING REFERENCE PUBLICATION

Three volumes of a newsletter entitled "Compu-Farm" is now available to Alberta Farmers in a publication entitled "The Best of Compu-Farm — Volumes I - III".

Compiled by Alberta Agriculture's farm business management branch, "The Best of Compu-Farm — Volumes I - III" contains information on the latest trends in agricultural computing that subscribers to "Compu-Farm" have been receiving every month. It has, for example, reviews on agricultural and general purpose computer software, reports on various computer shows, information on basic computer jargon and lists of computer vendors and magazines.

Free copies of "The Best of Compu-Farm — Volumes I - III" can be obtained from district agriculturists or from the Publications Office, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

A free subscription to "Compu-Farm" can be obtained from the Farm Business Management Branch, Box 2000, Olds, Alberta, T0M 1P0 (Telephone: 556-4240).

- 30 -

FOR IMMEDIATE RELEASE

BUFFERS AND BUTTERFAT TESTS

Are your butterfat tests dropping? It is possible that the problem could be buffers.

Ted Nibourg, district agriculturist at Three Hills, says the use of buffers in dairy cow rations is increasing as more grain is being fed and as finely chopped silage is making up a larger proportion of the modern dairy cow's ration. This type of ration is necessary to provide high producing cows with enough energy to meet their requirements, and buffers are used to correct low butterfat levels that sometimes occur as a result of a change in the fermentation process that takes place in the cow's rumen.

Mr. Nibourg explains that rations that contain a large amount of long forage tend to produce mainly acetic acid in the rumen, and that this is conducive to the formation of butterfat. However, rations such as direct cut grass, or corn silage that has been finely chopped to make it easier to store, may technically lack the "fibre effect" and be excessively high in acid content. Mr. Nibourg says the feeding of a large amount of grain twice a day in combination with a low forage intake tends to shift the rumen fermentation pattern away from the production of acetic acid to the production of propionic acid, which results in a lower butterfat test.

He reports that sodium bicarbonate and magnesium oxide are the two most commonly used buffers, and he says that a mixture of the two often gives the best results. Magnesium oxide, which is added to the grain mixture at the rate of 0.75 per cent, reduces the palatability of the feed. Sodium bicarbonate is added at the rate of 1.5 per cent, and is sometimes fed free choice in free-stall barns. According to Mr. Nibourg, there is little evidence to suggest that cows that need buffers eat them in the correct proportions, because taste preference for sodium bicarbonate varies among cows.

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- 2 -

Buffers And Butterfat Tests (cont'd)

Hence, the benefits from feeding buffers vary, depending upon the herd and the type of feeding regime that is being followed. Mr. Nibourg says butterfat tests will usually improve from about 0.1 to as high as 0.5 percentage units when buffers are fed, but that the increase is more commonly in the lower range. He also says that buffers cost from \$10 to \$15 per tonne in prepared dairy rations, and that butterfat tests must improve at least enough to offset this extra cost.

And he points out that changing the ration to one which would reduce the milk fat depression is an alternative to feeding buffers. For example some dry hay could be fed during periods of lush pasture growth; silage could be wilted to from 30 to 40 per cent dry matter to encourage a better type of fermentation in the silo; silage could be chopped just finely enough for good storage; the level of forage intake could be increased by improving the quality of the forage or by feeding it more frequently; the proportion of hay could be increased in a heavy silage feeding program; or grain could be fed more frequently to prevent the cows from eating a large amount at one time, or part of the grain ration could be mixed with the silage to facilitate a more evenly distributed grain intake.

- 30 -

July 2, 1984

FOR IMMEDIATE RELEASE

RADIAL TIRES FOR AGRICULTURAL TRACTORS

Favorable reports are beginning to be received from farmers who use radial tires on their tractors, says Alberta Agriculture's farm machinery engineer, F.M. Green.

Most are claiming improved traction under difficult traction conditions and less wear compared with conventional tires. In fact, some farmers said that their radials still looked reasonably good when they traded in their tractor for a new one, which naturally increased the trade-in value of the old tractor. However, most farmers simply say that their tractor seems to have a better all round performance.

Mr. Green says that the tread design on radial tires allows the tread to contact the soil, to sit on it firmly and to leave the soil surface with much less flexing than is the case with bias-ply tires. He reports that after 2500 hours of testing by a manufacturer, one radial tire showed a 50 per cent tread loss compared with an 80 per cent tread loss on a bias-ply tire that was tested under the same conditions. However, he points out that radial tires have not been tested on farm tractors for long enough to determine whether this difference in tread-life would hold true on most farms. "If it does, the increase in the radial tire's life would offset the higher cost of these tires compared with conventional tires", he says.

In addition to extending the tread-life of a tire, reduced slippage enables the vehicle to move forward at a higher speed with the same load, which results in more drawbar horsepower and a greater area being covered per hour. According to Mr. Green, the manufacturers of radial tires claim a slippage reduction of 30 - 35 per cent compared with conventional tires. Such a reduction would improve the forward speed of the tractor, and the area covered by 10 to 11 per cent. However, the Nebraska tractor tests showed an 8 per cent increase in speed and area covered.

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Radial Tires For Agricultural Tractors (cont'd)

Mr. Green says the increased tread-life of radial tires is most pronounced when a tractor is fully loaded, and that this advantage alone should compensate for the higher cost of these tires compared with conventional tires.

And he says in situations where conventional tractor tires cannot produce the desired power under specific soil or load conditions, radials will improve the traction, thereby avoiding the necessity of having to use larger bias-ply tires or dual tires.

Some radial tire manufacturers claim a fuel efficiency from the use of these tires versus conventional tires of 10 per cent. However, the Nebraska tests showed a 5 per cent improvement in fuel efficiency for tractors used on cultivated land.

The average price of radial farm tractor tires at the markets investigated at the beginning of the year by Mr. Green was \$2,542 for a pair of 18.4 x 38.8 - ply radials, representing an increase of \$724 compared with bias-ply tires. A pair of 20.8 x 38.8-ply radials cost \$3,394 or \$1,168 more than bias-ply tires of the same size.

Farmers who would like more information on tractor radial tires should get a copy of "Radial Tires for Agricultural Tractors" (Agdex 740-1) from their district agriculturist or by writing to the Publications Office, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

July 2, 1984

FOR IMMEDIATE RELEASE

1984 SCLEROTINIA CHECK LIST

The following check list for canola growers is based on Alberta Agriculture's research data and other research data obtained from sclerotinia control projects which have been carried out over the past few years.

The check list is intended to provide growers with a means of deciding whether or not it would be economical to spray their crops with a fungicide to control this disease, but the check list should be used with discretion. Weather conditions following an evaluation, for example, could either increase or decrease the level of disease that is predicted.

The time to fill out the check list is when the crop is in the initial to early bloom stage (5 per cent flowers). When answering question 1, you should put down 15 points if more than 30 per cent of the plants in the field or in a neighboring field have been infected during the last two years. If, on the other hand, there has been no previous infection in or near the field during that period, you would put down zero.

Phil Thomas, Alberta Agriculture's supervisor of oilseed crops, who compiled the check list in conjunction with plant disease specialists, points out that the suggested points for each section of each question are only guidelines, and that you may, for example, evaluate your soil's surface moisture (question 6) at seven points if you feel that it is between moist and wet. The same procedure applies to the other questions.

After you have put down what you feel are the appropriate points for each of the seven questions, you should add all the points together. From presently available information it would appear that if you get 40 points out of a possible 70, you will probably find it economical to use a fungicide to control the sclerotinia.

Now you are ready to evaluate your canola crop on the basis of the check list.

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1984 Sclerotinia Check List (cont'd)

- 1) Was sclerotinia in or near the field in the past two years?
 - a) If a heavy disease level (+30% of plants) - 15 points
 - b) If a moderate disease level (15% to 30% of plants) - 10 points
 - c) If a light disease level (1% to 15% of plants) - 5 points
 - d) No previous disease - 0 points

___ points

- 2) Does the stand have a good crop canopy?
 - a) If a very lush, heavy, dense, tall canopy - 10 points
 - b) If a reasonable growth, medium height, fairly dense canopy - 5 points
 - c) If an average growth, light density, open canopy - 0 points

___ points

- 3) Does the stand have a crop yield potential of?
 - a) Plus 30 bushels per acre - 10 points
 - b) Plus 25 bushels per acre - 3 points
 - c) Plus 20 bushels per acre - 0 points

___ points

- 4) Based on the stand at early bloom, and your past experience with canola, rate how you feel the crop will lodge.
 - a) Greatly lodged - 5 points
 - b) Moderately lodged - 3 points
 - c) Lightly lodged - 1 point

___ points

If you have rated your field between 30 to 40 of the possible points for the first four questions, carefully evaluate the next three questions which are governed by weather. If it is relatively dry when the field is in the initial to early bloom stage, your points for questions 5, 6, and 7 may be low. Hence, if it should rain shortly after you have done your evaluation, you would be wise to do another evaluation 24 to 48 hours later. Rain can drastically change the situation by promoting the development of apothecia (small mushrooms)

1984 Sclerotinia Check List (cont'd)

which, Mr. Thomas says, are a very important stage in the life cycle of the sclerotinia fungus. They produce the spores which are likely to cause infection in canola at flowering time during a moist period.

5) Are apothecia present in or near the field at early bloom?

- a) Large numbers, easy to find in the field - 15 points
- b) Find 5 in 10-minute search at 3 sites in the field - 10 points
- c) Hard to find, but are present (1 in 10 minutes at 3 sites) - 5 points
- d) No apothecia present in or near the field - 0 points

___points

6) How would you rate the topsoil surface moisture?

- a) Wet - 10 points
- b) Moist - 5 points
- c) Dry - 0 points

___points

7) How would you rate the crop canopy moisture?

- a) Plants wet or moist in the morning - 5 points
- b) Plants dry in the morning - 0 points

___points

Argentine-type canola generally gives a much greater response to a fungicide application than the Polish-types (Tobin, Candle) although disease levels may be reduced significantly in Polish canola, yield response (yield increase) can vary from no change to up to 8 bushels per acre in a 30 to 40 bushel per acre crop.

The following results were obtained from the use of a fungicide on a seriously infected field of the Argentine type canola Altex. The field was situated near Neerlandia and part of it was sprayed and part of it was left unsprayed as a check. The percentage of diseased plants that were found at the end of the season in the unsprayed part was 72.5 compared with

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1984 Sclerotinia Check List (cont'd)

only 6.4 in the sprayed part. The percentage of dockage in the unsprayed part was 22 compared with 4 in the sprayed part and the average yield in the unsprayed part was 14.3 bushels per acre compared with 39.7 bushels per acre in the sprayed part. In this case the increase in yield from spraying was 25.4 bushels per acre. In general, yield increases in sclerotinia-infected Argentine canola under a controlled situation have ranged from 3 to 26 bushels per acre.

As of 1984 two fungicides are registered for sclerotinia control in canola. They are Benlate (Dupont) and Rovral (May and Baker).

Canola growers who are not sure how to identify sclerotinia and/or apothecia should contact their district agriculturist who has a complete description of the various developmental stages of sclerotinia.

FOR IMMEDIATE RELEASE

RECYCLING CLAY AND PLASTIC FLOWER POTS

Because of increasing costs and the occasional shortages of both clay and plastic flower pots, people are becoming increasingly interested in reusing their old pots.

Dr. Ronald Howard, plant pathologist at the Alberta Horticultural Research Center at Brooks, says there is nothing wrong with reusing flower pots providing that you thoroughly clean and sterilize or disinfect them first. He explains that unless you do this, you will run the risk of infecting the new plants with soil-borne nematodes, viruses, bacteria and fungi.

Here is how he recommends recycling flower pots. First soak them in lukewarm water for one to two hours to loosen any soil that is adhering to them. Then scrub them with a stiff-bristled brush to remove the soil and any plant roots. Now sterilize the pots with steam or disinfect them with hot water or a chemical. Steam is probably the best thing to use for clay pots. They should be steamed at a temperature of at least 82° C for 30 minutes.

Steaming is not recommended for plastic pots because it could warp or melt them. You can soak them in 70° C to 75° C water for 15 minutes. Or if you do not have a ready supply of hot water, you can disinfect them with a chemical like formaldehyde or with a household bleach. The formaldehyde should be used at the rate of one L of a 37 per cent formaldehyde solution to 36 L of water, and the bleach should be used at the rate of one L of 6 per cent household bleach to 9 L of water.

If you use formaldehyde allow the pots to soak for 10 minutes, and if you use the bleach allow them to soak for 30 minutes. In either case make sure the pots are completely immersed and move them around occasionally to release any air bubbles. And remember to disinfect plant identification labels that you intend to reuse and pieces of broken crockery that you use to cover drainage holes.

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Recycling Clay And Plastic Flower Pots (cont'd)

Since formaldehyde has an offensive odor and its fumes can burn the eyes and irritate the skin, you should wear a respirator, goggles and gloves when using it, especially if you are working in a small area where the air circulation is poor. If you use a household bleach, you should change the solution frequently if the pots are not completely free of soil because the soil will rapidly inactivate the bleach.

Dr. Howard recommends discarding chipped and cracked flower pots and storing those that are not damaged in a clean place.

July 2, 1984

FOR IMMEDIATE RELEASE

BRANCH HEAD OF FOOD PROCESSING
DEVELOPMENT CENTER APPOINTED

Dennis Glover, director of Alberta Agriculture's marketing services division, has announced the appointment of Dr. Dave Schroder to the position of branch head of the Food Processing Development Center in Leduc.

Dr. Schroder obtained a Ph.D. in food science from the University of Minnesota, U.S.A., after having completed his M.Sc. in food science and his B.Sc. in agriculture at the University of Alberta. He brings to his new job a considerable amount of industrial food processing, scientific and technical experience from Canada, the United States and Great Britain.

Funded by the Alberta Heritage Savings Trust Fund at a cost of \$8.6 million, Mr. Glover says the center is a major addition to the department in terms of the development of the province's food processing industry. It is designed to respond to requests from agricultural commodity groups such as those involved with beef, pork and dairy products and grains, oilseeds, etc. And it will provide food processors with a facility in which they can develop and test their products under Alberta conditions.

Mr. Glover points out that the development of new products and the adoption of new technology will, in addition to maximizing the value-added aspects of agricultural commodities, allow processors to compete in the growing international market for processed food products.

The staff members who are currently operating out of Leduc and reporting to Dr. Schroder are: Peter Davies, supervisor of processing development; Peggy Marce, laboratory scientist; Murray Fierheller, food scientist and Debbie Anderson, secretary.

The Food Processing Development Center is located at 6309 - 45 Street, Leduc, Alberta, T9E 2Y7 and the telephone number is 986-4793.

COMING AGRICULTURAL EVENTS

1984

Breton Plots Field Day Breton, Alberta	July 6
Calgary Exhibition and Stampede Stampede Park Calgary, Alberta	July 6 - 15
Canadian Home Economics Association Annual Conference Ottawa, Ontario	July 7 - 10
Canadian Seed Trade Association Meeting Westin Hotel Ottawa, Ontario	July 8 - 11
1984 Provincial Agricultural Service Board Tour Athabasca, Alberta	July 10 - 12
Canadian Seed Growers' Association Convention Holiday Inn - Downtown Winnipeg, Manitoba	July 12 - 13
National Alfalfa Improvement Conference Lethbridge, Alberta	July 16 - 20
World Angus Forum Convention Inn Edmonton, Alberta	July 17 - 22
World Angus Show and Sale Northlands Agricom Northlands Grounds Edmonton, Alberta	July 17 - 22
Edmonton's Klondike Days Exposition Northlands Grounds Edmonton, Alberta	July 19 - 28
Alberta Women's Week Olds, Alberta	July 23 - 26
Provincial Soils Tour Lethbridge, Alberta and Area	July 24 - 25
Alberta Meeting of the International Association of Milk, Food and Environmental Sanitarians Edmonton Inn Edmonton, Alberta	August 5 - 9

Coming Agricultural Events (cont'd)

- Annual Meeting of the North American Weather Modification Council
Red Deer Lodge
Red Deer, Alberta August 14 - 16
- Canadian Farm Writers Federation Annual Meeting
Delta Inn
Winnipeg, Manitoba August 17 - 19
- Canadian Society of Extension Annual Conference
University of Manitoba
Winnipeg, Manitoba August 19 - 23
- Agricultural Institute of Canada Annual Conference
Winnipeg, Manitoba August 19 - 23
- Canadian Society of Soil Science
Banff Centre
Banff, Alberta August 26 - 29
- American Water Resources Conference
New York, U.S.A August
- Canadian Agricultural Chemicals Association Annual Meeting
Jasper Park Lodge
Jasper, Alberta September 9 - 12
- International Symposium of Ruminant Physiology
Banff Centre
Banff, Alberta September 10 - 14
- National Dairy Council of Canada Annual Convention
Hotel Vancouver
Vancouver, B.C. September 16 - 19
- Alberta Feed Industry Conference
Marlborough Inn
Calgary, Alberta September 18
- Western Nutrition Conference
Marlborough Inn
Calgary, Alberta September 19 - 20
- Poultry Servicemen's Workshop
Lake Louise Inn
Lake Louise, Alberta October 1 - 3
- Round-Up '84 Fall Agriculture Show
Stampede Park
Calgary, Alberta October 24 - 29

Coming Agricultural Events (cont'd)

National Outstanding Young Farmer Program Stampede Park Calgary, Alberta	October 26 - 30
Northlands Farmfair Northlands Grounds Edmonton, Alberta	November 1 - 10
Alberta Honey Producers Co-operative Ltd — Annual Meeting Mayfield Inn Edmonton, Alberta	November 6
Alberta Beekeepers Association Annual Convention Mayfield Inn Edmonton, Alberta	November 7 - 9
Annual Canadian Finals Rodeo Northlands Coliseum Edmonton, Alberta	November 7 - 10
Seed Technology Workshop Olds College Olds, Alberta	November 12 - 24
Alberta Irrigation Projects Association — Annual Conference Lethbridge Lodge Hotel Lethbridge, Alberta	November 19
Canadian Western Agribition and Mexabition Exhibition Grounds Regina, Saskatchewan	November 24 - 30
Alberta Wheat Pool Annual Meeting Palliser Hotel Calgary, Alberta	November 26 - December 7
Christian Farmers' Federation — Annual Convention Leduc, Alberta	November 30
Alberta Cattle Commission Annual General Meeting Westin Hotel Calgary, Alberta	December 3 - 5
National Farmers' Union National Convention Prince Edward Island	(Tentative) December 3 - 7
Winter Meeting of American Society of Agricultural Engineers Hyatt Regency New Orleans Louisiana, U.S.A.	December 11 - 14

Coming Agricultural Events (cont'd)

1985

Annual Interprovincial Alfalfa Seed School

Regina Inn

Regina, Saskatchewan January 13 - 15

Alberta Pork Seminar

Banff, Alberta January 16 - 18

Canadian Charolais Association Annual Meeting and Convention

Capri Centre

Red Deer, Alberta February 7 - 9

1986

World Sheep Congress

Stampede Park

Calgary, Alberta July 5 - 16

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July 9, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Hatching Egg Producers Vote To Continue Marketing Board	1
A Potential Biological Control Agent	2
"Fitness For Living": Theme For 4-H Expressions Program	3
Mineral Oil Produces More Lambs.	5
Fuel And Oil Analysis Service Available To Alberta Farmers	6
Dairy Manure — A Valuable Asset.	7
Building A Walk-In Cooler.	9
Watersavers Are Dollarsavers!	11

Phone: (403) 427-2121

Alberta
AGRICULTURE
Print Media Branch

July 9, 1984

FOR IMMEDIATE RELEASE

HATCHING EGG PRODUCERS VOTE TO
CONTINUE MARKETING BOARD

Alberta's hatching egg producers have voted in favor of continuing the operation of the Alberta Hatching Egg Marketing Board.

The Alberta Agricultural Products Marketing Council reports that 66.7 per cent of the 51 eligible registered producers have voted for the continuation of the marketing board.

The formation of the Alberta Hatching Egg Marketing Board was approved by a producer plebiscite in 1981 with the provision that another plebiscite be held within three years. The board established formal negotiating agencies to negotiate minimum producer prices for hatching eggs to be paid by hatcheries, and it has established a system of quotas for the production of hatching eggs. The board covers broiler-type hatching eggs only; not table egg production-type hatching egg flocks.

The favorable vote means the Alberta Hatching Egg Marketing Board will continue to operate under the provisions of the Marketing of Agricultural Products Act.

For further information contact T.E. Sydness, General Manager, Alberta Agricultural Products Marketing Council, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-2164).

- 30 -

July 9, 1984

2

FOR IMMEDIATE RELEASE

A POTENTIAL BIOLOGICAL CONTROL AGENT

The Trichogramma wasp, a genus of the minuscule wasp, would have a great potential as a biological control agent for numerous agricultural pests if it could be persuaded to reproduce more abundantly under North American climatic conditions.

According to Dr. Ulf Soehngen, entomologist at the Alberta Horticultural Research Center in Brooks, this wasp parasitizes at least 75 families of insects, including beetles, flies and moths by laying its eggs into their eggs.

He reports that the United States Department of Agriculture's Agricultural Research Service has recently formulated a salt solution to stimulate oviposition (egg laying) in Trichogramma wasps. It contains potassium chloride and magnesium sulphate, both of which are present in relatively large quantities in an insect's blood. The scientists hope that the formulation will stimulate oviposition enough to make it possible to hatch and release large numbers of these wasps.

However, there is still one problem to be overcome. It is that a synthetic diet has still to be found on which to rear the young wasps. The Chinese apparently feed them on insect blood, egg yolk, milk and salt, but insect blood is very expensive. And so the search goes on for a practical and economical diet for young Trichogramma wasps.

- 30 -

July 9, 1984

3

FOR IMMEDIATE RELEASE

"FITNESS FOR LIVING": THEME FOR 4-H EXPRESSIONS PROGRAM

Fitness will imply more than just physical fitness for over 200 4-H members and leaders attending the 4-H Expressions program this summer. Scheduled for August 8 through 10 at Olds College in Olds, the program theme "Fitness for Living" encompasses the many facets of fitness:

Physical Fitness participants will get involved in an aerobic disco session and learn the moves in break dancing.

Emotional Fitness participants will attend "Success: Being the Best You Can Be" and find out about mime, a different communication technique.

Social Fitness participants will meet and get involved with new people from across the province at the quilting bee and cookie-decorating session.

Financial Fitness participants will attend the "Do You Know Where Your Money is Going?" session.

Intellectual Fitness participants will get involved in the "Great Food Bowl" (bound to be a big hit with Trivial Pursuit lovers), learn more about a relatively new technology by attending the "Computer Savvy" session and experience a hands-on introduction to the new 4-H indoor gardening project.

And much, much more awaits participating 4-H members from across Alberta who attend 4-H Expressions. The two-day event is designed to provide opportunity to learn

- (cont'd) -

- 2 -

"Fitness For Living": Theme For 4-H Expressions Program (cont'd)

and share ideas, making each 4-H member's club work more meaningful. Acting as ambassadors from their clubs, participants will share the information learned with their clubs when they return home.

For further information, contact the program chairperson, Sandy Behnke of Alberta Agriculture's 4-H branch, Edmonton (427-2541) or co-chairperson Brenda White, Alberta Agriculture's district home economist at Strathmore (934-3355).

- 30 -

FOR IMMEDIATE RELEASE

MINERAL OIL PRODUCES MORE LAMBS

A daily oral dose of slightly less than two ounces of mineral oil given for 10 days before mating apparently increases the number of eggs ovulated by ewes and the number of lambs they produce.

According to information received by the head of Alberta Agriculture's sheep and goat section, Don Scheer, this finding was reported by three animal scientists from the University of Illinois at the American Society of Animal Science's annual conference which was held at Washington State University.

The scientists claimed that the mineral oil increased the ovulation rate of ewes, but that it had no effect on their digestive systems or on their general health. It is presumed that the mineral oil increases the rate of steroid secretion, which normally restricts the number of ovulations. Steroids are the normal ingredients of birth control pills.

Previous research has shown that the number of ovulations in ewes can also be increased by increasing the amount of grain they receive four to six weeks before mating (flushing) and by feeding them barbituate drugs.

The American scientists believe that further research will eventually enable sheep producers to choose from several methods of increasing the number of lambs their ewes produce each year.

FOR IMMEDIATE RELEASE

FUEL AND OIL ANALYSIS SERVICE AVAILABLE
TO ALBERTA FARMERS

Alberta farmers who think they have a problem with either their fuel or lubricating oil should contact their district agriculturist.

An agreement between Alberta Agriculture and the Alberta Research Council enables district agriculturists to help farmers analyse their fuel and/or lubricant problems by submitting samples on their behalf for testing at the Alberta Research Council's Gasoline and Oil Laboratory. This service is free as long as the samples are submitted by a district agriculturist, who will also advise the farmer on the proper procedure to follow when collecting the sample.

The Gasoline and Oil Laboratory has the facilities to test many refined petroleum products against the specifications of the Canadian General Standards Board and the Alberta Government. And the testing methods that are used have all been approved by such organizations as the Society of Automotive Engineers, the American Society of Testing and Materials and the American Petroleum Institute.

The laboratory tests automotive gasoline, diesel fuel, fuel oil and aviation fuel. In the case of the lubricating oils, physical tests and some chemical tests are carried out on both the new and used oil. However, the laboratory does not do product application or engine tests, and it is not equipped to test grease or propane gas.

After the analysis has been completed, two copies of the report are mailed out to the district agriculturist who submitted the sample. The report includes the results of the analysis and the corresponding typical values to be expected. Upon receipt of the report, the district agriculturist forwards one of the copies to the farmer concerned.

Further information on the Fuel and Oil Analysis Service can be obtained from district agriculturists or from Allen J. Krahn, Farm Implement Act Administration, Alberta Agriculture, 7000-113 Street, Edmonton, Alberta, T6H 5T6 (Telephone: 427-2188).

FOR IMMEDIATE RELEASE

DAIRY MANURE -- A VALUABLE ASSET

Dairy manure should be considered a valuable resource in light of today's high commercial fertilizer prices.

Brian West, animal waste specialist with Alberta Agriculture, says the manure from a confinement dairy operation can make an important contribution to the nutrient requirements of both forage and grain crops on a dairy farm if it is spread on the land at the right time and at the correct rate.

He also says many farmers do not incorporate manure into the soil soon enough after it has been spread, with the result that much of the valuable nitrogen is lost to the atmosphere or in run-off water. "Immediate incorporation of the manure," explains Mr. West, "is also very important in the control of odors associated with the manure spreading operation. Several devices are now available commercially which inject liquid manure into the soil, but, under Alberta conditions, conventional tillage still seems to be the most practical method of incorporation."

One of the main functions of a well planned manure storage facility is to enable the livestock owner to spread manure on the land at a time when the nutrients will be best used by the crops. Type and design of the storage facility is also critical from the point of view of cost, preventing surface and ground water contamination and the easy removal of the manure.

Information on manure storage facilities and the best methods of managing animal wastes is contained in a number of factsheets put out by Alberta Agriculture. "Confinement Livestock Facilities, Waste Management Code of Practice" (Agdex 400/27-1), "Land Application of Animal Manure" (Agdex FS538-1), "Guidelines for the Design of

- (cont'd) -

Dairy Manure — A Valuable Asset (cont'd)

Earthen Manure Storages" (Agdex FS729-2) and "Gravity Manure Transfer for Dairy Barns" (Agdex FS729-1) are all available from the Publications Office, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6. Additional information can be obtained from Alberta Agriculture's regional agricultural engineers, local dairy specialists and district agriculturists.

July 9, 1984

FOR IMMEDIATE RELEASE

BUILDING A WALK-IN COOLER

A large walk-in cooler is an asset for market gardeners and excellent for winter storage of fall vegetables, says Dennis Darby, farm structures engineer with Alberta Agriculture. A refrigerated cold room lets the gardener pick produce ahead of busy market days to even out the labor required. Better quality produce can be offered for sale when it is kept cool.

Mr. Darby explains that new cold rooms can be built of simple stud construction, lined with thick moisture-proof insulation, such as foil covered foam boards, or closed-cell polystyrene like Dow SM. More porous insulations require a vapor barrier on the outside (warm side) of the wall. A tough, sanitary liner such as fibreglass panel, epoxy painted plywood or metal liners is desirable.

Good cold room doors and seals are important, says Mr. Darby. "It is probably best to buy complete prehung cold room doors for best long-term trouble-free operation."

Small coolers are powered by a 3/4 to two horsepower refrigeration unit. Maintaining a high humidity is important, particularly for cold storage. Select cooling coils to operate at a low (5 ° C) temperature difference to reduce moisture loss and coil frosting. It is important to consult equipment suppliers for correct cooling coils, compressors and related controls.

Details for walk-in coolers are provided in Canada Plan Service M 6319, available from Alberta Agriculture's district offices or regional agricultural engineers.

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- 2 -

Building A Walk-In Cooler (cont'd)

Large freezers can be built from the same plan, but for most families it is more practical to buy an extra deep freeze.

Before building a cooler, advises Mr. Darby, consider the options available for good used equipment such as restaurant, hotel or supermarket coolers. Refrigerated truck bodies, complete with coils and compressors, are available and make good cold rooms.

- 30 -

July 9, 1984

FOR IMMEDIATE RELEASE

WATERSAVERS ARE DOLLARSAVERS!

by Debbie Brekke
District Home Economist, Airdrie

As the costs involved in obtaining fresh water and in treating sewage steadily rise, it makes good sense to reduce home water consumption.

The greatest user of water is the toilet, which accounts for 40 per cent of the 750L (165 gallons) of water used by a typical Alberta family each day. With each flush, about 30L of water is required to sweep away a small amount of waste.

There are a number of inexpensive ways to reduce this flush volume, which can save as much as \$40 a year on water and sewage treatment costs. One of these entails lowering the water level in the toilet tank by adjusting the filling mechanism. This approach will decrease the quantity of water available for each flush, but any appreciable reduction in water height in the tank usually results in an ineffective flush.

The easiest method entails setting a water displacing object, such as a brick wrapped in plastic or a bottle filled with water, into the toilet tank. It will reduce the volume of water being flushed away while, at the same time, maintaining the water level in the tank. Although this method is effective, it is often difficult to substantially reduce the water flow without interfering with the flushing mechanism.

Still another method entails installing toilet tank dams. They are flexible brass or stainless steel plates covered with a thermoplastic rubber, which can form an enclosure around the drain valve to hold back unnecessary water from the flushing action. They will reduce the flow by as much as 50 per cent. However, toilet tanks should be examined before toilet dams are purchased because they will not work in a tank that has been fitted with a styrofoam liner.

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Watersavers Are Dollarsavers! (cont'd)

Toilet dams range in price from \$8 to \$12 a pair, and they will pay for themselves in less than six months. They require no installation tools, they can be put in a place in a matter of seconds and they are maintenance free.

Anyone who would like additional information or a publication on ways to reduce water consumption, or who would like information on other energy saving ideas, should consult his or her district home economist.

July 16, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Alberta Exports To U.S. Up 17 Per Cent.	1
Fungal Disease Problems.	3
Alberta Branch Plans Seed Growers' Workshop.	5
Negotiating With A Seismic Company.	6
Open Discharge Sewage System.	8
Raising Meat Rabbits In Alberta	10
Regional Livestock Specialist (Lethbridge) Appointed	12

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FOR IMMEDIATE RELEASE

ALBERTA EXPORTS TO U.S. UP 17 PER CENT

Total sales of Alberta agricultural products to the United States increased from \$156 million in 1982 to \$183 million in 1983, an increase of 17 per cent.

Dave Rous, trade director with Alberta Agriculture, says he's encouraged by recently released Statistics Canada figures on Alberta exports to the U.S.

"Results in the meat/livestock industries, one of our priority areas, show sales of live animals up from \$50 million in 1982 to \$56.5 million in 1983, a 13 per cent increase," says Mr. Rous.

Even more impressive is the increase in meat sales (beef and pork) — up 20 per cent. Sales in 1982 totalled \$36 million; in 1983, \$43 million. Beef exports are up 30 per cent — \$30 million to \$39 million.

Pork sales decreased from \$4 million in 1982 to \$3 million in 1983. But, Mr. Rous points out, this figure underestimates actual Alberta pork sales to the U.S. because shipments from Fletcher's, the major exporter of Alberta pork, enter the U.S. via B.C. ports of entry. The statistics record shipments according to province of lading so not all of Fletcher's exports are included in the Alberta export figures.

Canola meal exports showed a dramatic increase from \$2 million in 1982 to \$8 million in 1983, a 300 per cent increase. "This commodity is currently in a sold out position which is good news for the many farmers growing canola this year," says Mr. Rous.

"Another interesting highlight", notes Mr. Rous, "is the significant increase in seeds for sowing, that is, forage seeds. We've had a 130 per cent increase in sales."

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Alberta Exports To U.S. Up 17 Per Cent (cont'd)

Mr. Rous attributes the tremendous increase in forage seed sales to the U.S. PIK (Payment in Kind) program which encouraged U.S. farmers to switch to alternate crops from traditional grains such as wheat and corn.

"All told, we're enthused about what these statistics show," concludes Mr. Rous. "They show a continuing trend in increased sales of Alberta agricultural products to the U.S."

FOR IMMEDIATE RELEASE

FUNGAL DISEASE PROBLEMS

This year's good growing weather has brought some problems. Warm moist weather produces the perfect breeding ground for many kinds of fungal diseases, reports Jerome Manchur, Alberta Agriculture's district agriculturist at Ryley.

Sclerotinia of canola, net blotch of barley and tan spot of wheat are all diseases that are favored by warm, moist conditions. Mr. Manchur says many of these fungal diseases are related and recommends controlling them by using the following methods.

- Use crop rotation. Never grow the same crop on the same land it was grown on the previous year. For example - don't grow canola after canola or wheat following wheat. Most diseases (with the possible exception of canola diseases) are the result of growing the same crop as was grown the previous year. With our continuous cropping system nowadays, this may be hard to avoid, but it must be avoided if disease is to be controlled. For example, says Mr. Manchur, the only fields of wheat affected with tan spot which he's seen this year have been on land which had wheat grown on it the previous year.
- Bury your stubble if possible. The better the fungi can be buried, the better the disease control you will experience in your crop.
- Always use treated seed. Although the seed treatments on the market today do not control the fungal diseases mentioned, they do help to get the plant off to a healthy start. A healthy plant is always less susceptible to disease than a weak one.

- (cont'd) -

Fungal Disease Problems (cont'd)

- Use adequate amounts of fertilizer. Soil test to be sure your crop will be getting what it needs to be healthy.

If these four steps are followed, the incidence of disease in your crops will be reduced. For more information on these diseases, contact your local district agriculturist.

July 16, 1984

FOR IMMEDIATE RELEASE

ALBERTA BRANCH PLANS SEED GROWERS' WORKSHOP

The Alberta branch of the Canadian Seed Growers' Association will be hosting a seed growers' workshop for current and prospective seed growers on July 25, 1984, in Lethbridge, Alberta.

Registration will take place at 8:30 a.m. at the Agriculture Centre in Lethbridge. There is no charge for the workshop.

The workshop will provide an excellent opportunity for participants to learn from the speakers and air any complaints. The workshop organizers strongly urge growers to attend.

The agenda includes presentations in the morning from Dr. Ken May, a plant breeder with Agriculture Canada and from Steve Klack, plant products inspector, Agriculture Canada. Len Haney, a seed grower from Picture Butte, will give an update on SeCan, and Art Strain, a grower from Foremost, will give a grower's point of view.

The afternoon will be devoted to field programs and demonstrations at the Agriculture Canada research station in Lethbridge. Included will be demonstrations of current licensed varieties of cereals, oilseeds and special crops. The day will end with a question and answer period.

- 30 -

FOR IMMEDIATE RELEASE

NEGOTIATING WITH A SEISMIC COMPANY

Negotiating with a seismic permit man can be a stressful experience for many people.

Glen Werner, senior district agriculturist at Stettler, outlines a few points that may make the situation less stressful and suggests some things that should be included in the permit.

First, no seismic operator can enter, without permission, land that is being farmed by either the owner or a tenant. It is the person who owns or rents the land (the person in lawful possession) who grants permission. If he says no, the answer is no and the company has no recourse.

Second, a farmer can obtain details regarding the intentions of a seismic crew by contacting the director of minerals at Alberta Energy and Natural Resources. The company has to file a report which states the location of its activities with that department.

Third, a seismic company is responsible for any damage it may incur during its operations. There are minimum distances from buildings and water wells that must be observed. Even if the crew were working beyond the minimum distance, if they damage a well, the company could still be responsible for the damage. "The potential for such damage should be covered in the permit," Mr. Werner says.

He says the following are a few things that anyone contemplating signing a permit should do for his own protection.

- Be sure the width of the area to be used is indicated in the document.
- Make sure that the document indicates the point of entry to the area to be used.
- Specify in a diagram where the area lies in relation to the titled unit.
- Stipulate the dates when the seismic crew can begin work and when they must be off the property.

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Negotiating With A Seismic Company (cont'd)

- State the locations of any water wells in the area and the compensation expected in the event of damage.
- Specify the date on which the payment, which has been negotiated with the company, must be received.

Mr. Werner points out that once a farmer has signed a damage release, he, in most cases, has no further recourse for compensation except in the cases of a land cave-in or flowing well.

“Remember”, he says, “when a seismic landman approaches you for a seismic permit, you are the one who decides whether or not he will get it. If you decide to sign, be sure you protect your rights by using the Permit to Conduct Geophysical Operations or the Alberta Geophysical Permit which is available from most of Alberta Agriculture’s district offices or, upon demand, from the seismic company.”

Be sure to obtain a copy of the Alberta Farmers’ Advocate pamphlet entitled “Seismic Operations and Farmers’ Rights,” available through your district agriculturist, the Farmers’ Advocate Office or in many cases the seismic permit man.

July 16, 1984

FOR IMMEDIATE RELEASE

OPEN DISCHARGE SEWAGE SYSTEM

The open discharge sewage system is one of the most popular systems of sewage effluent disposal used on prairie farms because it is one of the most trouble-free.

In this system the effluent (liquid portion of the sewage) is pumped from the septic tank to the surface of the ground. In summer the effluent evaporates, is absorbed by the soil and used by plants. During the winter some of the effluent may accumulate as ice and melt in spring. Most of the bacteria are killed through exposure to air and sunlight. Open sewage systems can be used to dispose of large volumes of water in high water table areas and in areas which have heavy clay soils.

Regulations governing the use of this type of system state that the point of disposal must be at least 50 metres from the house, a property line, well, spring, cistern or other private water source. The discharge point must also be at least 100 metres from any lake, river, stream or water course, and there must be no chance of the effluent contaminating a water source or creating a nuisance. The effluent must not be discharged onto any land where garden vegetables are being grown. Finally, use of an open discharge sewage system is limited to single family dwellings. A permit to install such a system must be obtained from the plumbing and inspection branch of Alberta Labour.

There are two types of pumping systems that can be used with an open discharge sewage system. One is the submersible sewage pump. Located inside the septic tank, this pump usually has its liquid level control built into it. The other type of pump is the basement located pump. It is more accessible for maintenance than the submersible pump.

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- 2 -

Open Discharge Sewage System (cont'd)

Detailed information and diagrams on the open discharge sewage system and instructions on installing submersible and basement located pumps are contained in the Agri Fax publications "Submersible Pump For Sewage Effluent Disposal by Open Discharge" (Agdex 716-H20) and "Basement Located Pumps for Sewage Effluent Disposal by Open Discharge" (Agdex 716-H21). They can be obtained from the Publications Office, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

- 30 -

FOR IMMEDIATE RELEASE

RAISING MEAT RABBITS IN ALBERTA

With a reasonable capital outlay, a person who raises rabbits can produce wholesome meat for home consumption, realize a small profit and collect the best organic manure available. However, anybody who thinks that rabbit raising is a quick way to riches should not go into this business.

In addition to an instinct for raising livestock, prospective rabbit raisers should have some knowledge about and experience in raising rabbits if they are to be successful, regardless of the size of their operation. The best possible advice that a novice rabbit raiser can follow is to start on a small scale and to expand only when the necessary experience has been gained.

A starter unit of rabbits should contain no more than 20 does and three or four bucks. A rabbitry of this size will provide beginner rabbit raisers with a wide range of experience and, if after a year, they decide to continue raising rabbits they will have established a good starter herd. If, on the other hand, they decide that raising rabbits is not for them, they can easily dispose of their rabbits.

Incidentally, a backyard rabbitry that contains three or four does and a buck will provide enough meat to vary the diet of an average family.

The primary consideration regarding size of operation for experienced rabbit raisers is the amount of capital they can invest and the amount of time they can devote to it. A rabbitry of 20 to 200 does may be considered part-time employment, while a 200-doe rabbitry would require a minimum of four hours of time a day. Working full time, a husband and wife team could handle approximately 600 does, but an operation of more than 300 producing does has apparently never been successful in Alberta. To date it has proved to be too capital and too labor intensive. Whatever the size of the contemplated operation, it is essential that a market outlet be established before anything else.

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- 2 -

Raising Meat Rabbits In Alberta (cont'd)

A publication entitled "Raising Meat Rabbits in Alberta" (Agdex 476/20-1), published by Alberta Agriculture, sets out general principles on rabbit raising in this province and presents methods for carrying them out. It also discusses the rabbit industry as it exists in Alberta today. A factsheet, "the Economics of Rabbit Production" (Agdex FS476/18-1), is also available. Both publications can be obtained from district agriculturists or by writing to the Publications Office, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

- 30 -

July 16, 1984

FOR IMMEDIATE RELEASE

REGIONAL LIVESTOCK SPECIALIST (LETHBRIDGE) APPOINTED

E. Alan George, acting regional director of the southern region of Alberta Agriculture, is pleased to announce the appointment of Dwight Karren to the position of regional livestock specialist in Lethbridge.

Mr. Karren received his B.Sc., B.Ed. and his Masters in Animal Science (Animal Breeding) from the University of Alberta. His previous work experience includes four years of teaching at an agricultural college in Ontario as a beef cattle specialist. More recently he has been employed by Alberta Agriculture as a regional livestock specialist in Red Deer for the past ten years.

The move to Lethbridge marks a return to southern Alberta for the former native of Picture Butte, his wife Diane, and their five children. Mr. Karren is scheduled to commence his new duties effective August 1st.

- 30 -

July 23, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Changes In Crop Insurance Policy	1
Chinese Range Improvement Mission Touring Alberta	3
Farmers Advised Not To Turn Under Crops	4
New Regulations For Transporting Hay And Straw	5
Canadian Wheat Outlook	6
Alberta Firms Receive Financial Support From Federal-Provincial Program	7
Federal-Provincial Program For Nutritive Processors Helps Create 50 Jobs For Alberta Residents	8
Backflow Prevention	10
Horticultural Research Center To Hold Field Day	12
Alberta Environmental Centre Crops Field Day	13
Pickling Cucumber Crop	14

FOR IMMEDIATE RELEASE

CHANGES IN CROP INSURANCE POLICY

In recognition of the threatened livestock feed shortage in southern Alberta, Agriculture Minister LeRoy Fjordbotten has announced changes in crop insurance policy which will facilitate cutting insured crops for feed purposes. The changes will apply only for 1984 and are being made because of the extreme drought conditions.

"Farmers will now be able to cut insured crops for feed and leave representative strips to be adjusted closer to the normal harvest period. This will enable them to utilize the crops for feed before they completely dry out and have little feed value left," said Mr. Fjordbotten.

Previously, appraisals on insured crops had to be finalized by the Alberta Hail and Crop Insurance Corporation before crops were released.

Mr. Fjordbotten advises that farmers taking advantage of this new adjusting procedure should realize that claims must still be filed at the local office of the Alberta Hail and Crop Insurance Corporation before any cutting or pasturing takes place. Failure to do so will result in loss of insurance coverage. An adjustor will call and reach an agreement as to the size and location of representative strips.

The strips will be appraised by the corporation at its discretion after August 15, 1984 and final settlement of loss on any crop will be made, taking into account the appraisal as well as any harvested production from that crop.

For crops which are to be pastured, the adjustment must be finalized before livestock are turned into the field.

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AGRICULTURE
Print Media Branch

Changes In Crop Insurance Policy (cont'd)

It is likely there will be a large number of requests to put acreage to alternative use in some areas. While the corporation expects to be in a good position to handle claims in good time, the minister states that farmers should file their claims at least two days, and more, if possible, before they expect to commence cutting the crop to allow time for an adjustor to be assigned to the claim. Priority will be given to urgent situations to the extent that is possible.

Mr. Fjordbotten says this change in policy should be helpful to farmers facing a shortage of feed but he cautions that they should also be fully aware that if moisture is received and the yield potential of the test strip improves after the crop has been cut, this will mean a higher appraisal.

Said Minister Fjordbotten, "I am confident these changes will allow producers to make the necessary management decisions that will benefit their operations. This change in policy demonstrates the government's ability to respond to the needs of producers as circumstances dictate."

Producers should contact their nearest Alberta Hail and Crop Insurance Office for more information on these revisions to the crop insurance program.

July 23, 1984

FOR IMMEDIATE RELEASE

CHINESE RANGE IMPROVEMENT MISSION TOURING ALBERTA

Six Chinese rangeland experts are studying range and pasture management in Alberta. The delegation from the province of Heilongjiang in the People's Republic of China will tour the province from July 19 to August 4.

The visiting mission is being hosted by the market development division of Alberta Agriculture.

Bill Anderson, the division's trade director for Asia, says vast areas of northern China are semi-arid and lack suitable soil for crop production. The areas have a long history of grazing nomadic cattle, but in the last three decades, as a result of more intensive grazing, the rangelands have suffered much ecological damage.

The delegation from China is here to see what grazing management techniques used in Alberta could be used to improve these damaged rangelands in China.

The group will make overnight stops in Stettler, Consort, Brooks, Lethbridge, Olds, Banff and Edmonton. They will also go to the Peace River country to see the production of forage seed.

Mr. Anderson says a joint Alberta-China project in the province of Heilongjiang, a "twinning" province of Alberta, is underway now in an effort to improve China's range and pasture lands. The long-term goal of the market development division is to make sales of forage seeds to the Heilongjiang government.

During their stay in Alberta, the delegation will meet with Alberta's minister of agriculture, LeRoy Fjordbotten. The delegation will be accompanied on their tour through Alberta by range and forage specialists from Alberta Agriculture.

July 23, 1984

FOR IMMEDIATE RELEASE

FARMERS ADVISED NOT TO TURN UNDER CROPS

Farmers whose crops have been badly affected by drought are advised not to turn under their crops.

Larry Welsh, Alberta Agriculture's regional crop protection specialist in Airdrie, is concerned about the number of farmers who are turning under their drought-stricken crops.

"By so doing," says Mr. Welsh, "they are leaving their fields vulnerable to wind erosion."

Mr. Welsh assumes farmers are plowing under crops in an effort to conserve moisture and to prepare summerfallow for the next crop season. "But there's no moisture there to conserve and the field will be left vulnerable to winds from now until next summer."

Instead Mr. Welsh advises farmers to leave their crops standing. The crop will protect the soil and, if we do get rain, there is the possibility of second growth in the crop which could be cut later for feed.

- 30 -

July 23, 1984

FOR IMMEDIATE RELEASE

NEW REGULATIONS FOR TRANSPORTING
HAY AND STRAW

Alberta Transportation Minister Marvin Moore has announced regulation changes which recognize the specific needs of the agricultural community in the transportation of hay and straw for distances not exceeding 50 kilometres.

Under the amended regulations, permits are no longer required when loads of less than 4 m (or 13 ft) in width are transported during daylight hours, provided that when deck extensions are used, they are folded or retracted in width to 2.8 m (9 ft 2 in.) when the vehicle is empty. Loads in excess of 4 m (13 ft) in width as well as loads over 5 m (16 ft 5 in.) in height require a special permit from the motor transport branch, which is available at no cost. Loads hauled at night will continue to require lighting and special signing, depending upon the width.

These permits and additional information are available from any of the vehicle inspection stations and district offices of the motor transport branch of Alberta Transportation or from the motor transport branch office in Red Deer.

Mr. Moore stated, "These regulation changes are in keeping with the government's commitment to regulatory reform and should allow a greater flexibility for farmers hauling hay. You will of course, be expected to take any precautions necessary to ensure that you do not jeopardize the safety of other roadway users. Vehicle operators are reminded that special attention must be given to overpass heights as well as to building and securing a safe load within legal weight limits."

July 23, 1984

FOR IMMEDIATE RELEASE

CANADIAN WHEAT OUTLOOK

The size of Canada's wheat crop is changing almost daily as the drought in southern Alberta and Saskatchewan continues.

During the first half of July, estimates for the size of the Canadian wheat crop dropped 20 per cent.

Dwayne Couldwell, Alberta Agriculture's grain marketing economist, says in early July the wheat yield was estimated at 30 bushels per acre. Two weeks later, that figure had dropped to 24 bushels per acre.

Mr. Couldwell notes that of the 32 million acres in Canada seeded to wheat, 27 million acres are in Alberta and Saskatchewan. If those two provinces are hurt by drought, the Canadian production figure is drastically affected.

The wheat that Canada does produce in 1984 will face stiff competition on the export market. A record world wheat crop of 497.7 million tonnes is forecast for 1984-85.

Higher quality Canadian wheats may have a slight advantage, Mr. Couldwell says, as they will not be competing with the larger world coarse grain harvest. He also says the weakness of the Canadian dollar will help support Canadian prices.

Early spring drought in the U.S.S.R. put some serious doubts on the size of their crop, especially winter wheat. Recent rains have broken the drought and a reasonable spring crop will make up some of the shortfall in the winter crop. The progress of the U.S.S.R. crop will have a strong effect on markets, since, as Mr. Couldwell points out, the U.S.S.R.'s year-to-year change in crop size is frequently equivalent to our entire wheat production.

- 30 -

This article is based on information that was current to July 18, 1984.

FOR IMMEDIATE RELEASE

ALBERTA FIRMS RECEIVE FINANCIAL SUPPORT
FROM FEDERAL-PROVINCIAL PROGRAM

Assistance totalling \$56,521 has gone to two Alberta food processors. The assistance was made under the Canada-Alberta Nutritive Processing Assistance Agreement.

The offers of assistance were announced today by Ed Lumley, federal industry minister, and by the Honourable LeRoy Fjordbotten, Alberta's minister of agriculture.

Daigneault Holdings Ltd. (operating as Bob's IGA) will use an offer of \$28,721 to build an in-store bakery in Falher, Alberta. The firm will operate the only bakery in Falher and will provide bakery products to the surrounding area. The addition is expected to cost approximately \$97,000.

A canola crushing firm located in Lloydminster will modernize and expand its existing facility. United Oilseed Products Ltd. has accepted an offer of \$27,800 to upgrade its air flow system, replace meal screens, install load-out equipment for its truck tankers and construct concrete waste water holding tanks. Manager George Hatton said the cost of the modernization/expansion is estimated at \$139,000.

Since the Nutritive Processing Agreement was signed in 1975, more than \$24 million has been offered to food processors in rural Alberta.

A one-year extension to the Nutritive Processing Agreement was recently signed by the two governments. The extension allows applicants until September 30, 1985 to apply for assistance.

The agreement is jointly administered and equally funded by the federal Department of Regional Industrial Expansion (DRIE) and Alberta Agriculture.

- 30 -

For further information, contact Dr. J.E. Wiebe, Executive Director, Rural Development, Alberta Agriculture, Telephone: (403) 427-4287.

July 23, 1984

FOR IMMEDIATE RELEASE

FEDERAL-PROVINCIAL PROGRAM FOR NUTRITIVE PROCESSORS
HELPS CREATE 50 JOBS FOR ALBERTA RESIDENTS

A joint federal-provincial program will assist two rural processors, located in Stony Plain and Nanton, to create employment opportunities for 50 Alberta residents. The firms have accepted offers of assistance totalling \$404,268 under the Canada-Alberta Nutritive Processing Assistance Agreement.

The offers of assistance were announced today by Ed Lumley, federal industry minister, and by the Honourable LeRoy Fjordbotten, Alberta's minister of agriculture.

Andrew Wolf Cellars Ltd. will construct a new wine-making plant in Stony Plain with the aid of a \$254,200 offer of assistance. The 15,000-square foot facility is expected to have a production/aging capacity of 186,500 gallons by the end of the third year of operation. Andrew Wolf, president of the company, says the new facility is expected to cost almost \$2 million. Mr. Wolf also says that he plans to open four new retail outlets which will sell wines from this winery. The project is expected to create employment for 19 local residents.

Nanton Foods Ltd. has accepted an offer of assistance totalling \$150,068 to build a new facility in Nanton to process beef and pork products. Owner Paul Abildgaard says the 3,400-square-foot plant will house state-of-the art processing equipment. Mr. Abildgaard says that the plant is expected to cost in excess of \$450,000 and will employ 31 persons. The processing plant will produce beef cuts, link sausages, meat patties and is the first of its kind in the prairies to produce meatballs. The products will be sold to retail outlets and the hospitality industry. Mr. Abildgaard is known in Alberta for his production of bottled water which is bottled under the "Nanton Spring Water" label.

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Federal-Provincial Program For Nutritive Processors
Helps Create 50 Jobs For Alberta Residents (cont'd)

Since the Nutritive Processing Agreement was signed in 1975, more than \$24 million has been offered to food processors in rural Alberta.

A one-year extension to the Nutritive Processing Agreement was signed just recently by the two governments. The extension allows applicants until September 30, 1985 to apply for assistance.

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*For further information, contact Dr. J.E. Wiebe, Executive Director, Rural
Development, Alberta Agriculture, Telephone: (403) 427-4287.*

FOR IMMEDIATE RELEASE

BACKFLOW PREVENTION

Water supplies can be contaminated by accidental backflow of agricultural chemicals.

"This is a continuing, potentially lethal, problem," says Archie Archampong, water engineer with Alberta Agriculture.

In Alberta, the problem is widespread, occurring mainly in the summer when farmers are active on the land.

A typical accident involves a preventable backflow of herbicides or pesticides into hydrants and wells. Mr. Archampong says if this happens, it is necessary to pump the well through the affected outlet. He cautions farmers to avoid overpumping the well and to direct the water to a safe place.

"Neither drink the water nor water your livestock with it," he advises. "Get in touch with your district health inspector (DHI) to assist you in sampling the water to determine the concentration of the chemical content. Continue to pump the unit until an acceptable level of the chemical's concentration is reached. The DHI will assist you in this regard."

The best approach is prevention, says Mr. Archampong. "Avoid accidental backflow by installing a backflow preventer. Also, be sure to leave an air gap between the chemical mixing tank and the water hose."

A backflow preventer, also called an antisiphon or a vacuum breaker, is a special plumbing fitting that permits water to flow in one direction only. The device can also sense flow in the reverse direction and will trip a built-in mechanism to drain away any contaminated water.

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Alberta

AGRICULTURE

Print Media Branch

- 2 -

Backflow Prevention (cont'd)

A backflow preventer should be installed at the point where water is taken (outside faucets, hydrants) for mixing hazardous chemicals or other contaminants. A wide variety of backflow preventers with varying prices is available through plumbing and irrigation equipment suppliers. For most farm applications, says Mr. Archampong, a three-quarter inch backflow preventer with a retail price of about \$12.00 will be satisfactory.

- 30 -

July 23, 1984

FOR IMMEDIATE RELEASE

HORTICULTURAL RESEARCH CENTER TO HOLD FIELD DAY

Items of interest to everyone will be featured at the Alberta Horticultural Research Center's 22nd Annual Field Day to be held on Friday, August 31, 1984. Horticulture in the '80s is the theme and all aspects of horticulture will be highlighted.

Exhibits and displays will feature locally grown fruits, vegetables and potatoes. Varieties of herbs and spices and nursery material will also be on display.

Research plot tours of vegetable, special, field and forage crops will provide visitors the opportunity to view research projects being conducted. Greenhouses will be in full production and you will see hydroponic lettuce, climbing beans, seedless cucumbers and tomatoes grown in rockwool and peat bags. Alstromeria and gerberas will be in bloom.

Specialists in the plant pest clinic will be available to diagnose and discuss plant diseases, insect and weed problems. People are encouraged to bring specimens along. There will be special demonstrations on pruning, grafting and budding and food preservation — canning and dehydration. Methods of increasing garden production, ornamentals for the yard and soil mixes for house plants will also be featured.

The field day is designed to provide an insight into the future of horticulture. There will be items of interest to everybody. Field day visitors will be served fresh corn-on-the-cob and refreshments; however, they should bring a picnic lunch. Most of the tours will be conducted on wagons but a limited amount of walking will be involved to visit displays and picnic areas.

Further details on the program, which will begin at 9:00 a.m. and continue until 4:00 p.m., can be obtained from the Alberta Horticultural Research Center, Brooks, telephone 362-3391. The center is located five kilometres east of Brooks on the Trans-Canada highway.

- 30 -

July 23, 1984

FOR IMMEDIATE RELEASE

ALBERTA ENVIRONMENTAL CENTRE CROPS FIELD DAY

The public is invited to the second annual crops field day at the Alberta Environmental Centre in Vegreville on August 2 at 1:30 p.m. Of special interest to farmers will be the research plots for the study of plant diseases, weeds and insect pests.

Visitors to the centre will be taken on guided tours of plots where newly registered and experimental herbicides are tested. Field experiments are also being carried out to examine biological control of weeds with insects, the tolerance of new cereal varieties to registered herbicides and of rotational crops to herbicide carryover, and competition and crop losses caused by weeds.

One of the attractions of the tour will be the weed "garden" with its excellent assortment of 80 weed species.

At other stops on the tour, visitors will see plots where scientists are studying plant diseases such as alfalfa decline, seedling blight and sclerotinia in canola and lentils, and root rot and foliar diseases in cereals, as well as damage caused by insects such as flea beetles and root maggots in canola.

Refreshments will be served to visitors at the crops field day.

The Alberta Environmental Centre was opened in 1981 to do environmental research for Alberta Environment and other provincial government departments and agencies. The centre is located in Vegreville, 100 km east of Edmonton on Highway 16.

- 30 -

July 23, 1984

FOR IMMEDIATE RELEASE

PICKLING CUCUMBER CROP

The pickling cucumber crop is on schedule at Alberta market gardens. "The crop will be ready beginning in mid-July (depending on the area) and carrying through to mid-September," says Phil Dixon, vegetable crop extension specialist at the Alberta Tree Nursery and Horticulture Centre, Edmonton.

"We did have a few problems earlier on in May, due to cold soil conditions," Mr. Dixon says. "Seeds just don't germinate in cold soil and, after a period of time, will rot. We had quite a few growers busily reseeding."

Traditionally, pickling cucumbers have been a good crop for market gardens because of the vegetable's popularity with consumers. "Growers in Alberta grow a very high quality pickling cucumber," Mr. Dixon says. "The crop is quite perishable and the Alberta growers can offer them to consumers the same day they are picked, often the same hour."

"Freshness," according to Gail Lemke, Alberta Agriculture's district home economist at Stony Plain, "is the key for quality dills and whole type pickles. The cucumbers should be pickled within 24 hours of picking. Hollow pickles can result from older produce. Cucumbers lose moisture rapidly so if they cannot be processed immediately, they should be refrigerated in plastic bags."

Ms. Lemke adds that pickles can be used at any size. "Those the size of a little finger are used for gerkins and baby dills. The three-inch size is perfect for dills or bread and butter pickles."

The pamphlet "Making Pickles and Relishes at Home" (Homedex 1153) is available from Alberta Agriculture's district home economists or by writing to the Publications Office, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

- 30 -

Alberta

AGRICULTURE

Print Media Branch

July 30, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Drought Strategies For Farmers	1
Feedgrains Outlook	3
Oilseed Outlook	4
Farm Safety Week — July 25 To 31	6
Southern Alberta Food Processors Receive Financial Assistance	8
Central Alberta Companies Benefit From Government Assistance	10
Land Reclamation Research Field Day	12
Farm Fuel Eligibility Declaration Simplified For Farmers	13
Premier Says Grain Freight Rates Should Not Increase	14

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Print Media Branch

FOR IMMEDIATE RELEASE

DROUGHT STRATEGIES FOR FARMERS

Farmers in the drought-stricken areas of the province are urged not to cultivate soils unless absolutely necessary. This warning applies to fields not planted this spring and also to cropped fields which have been cut for silage.

This spring provided clear evidence of the consequences of the combination of dry soil and wind. John Timmermans, soil salinity and conservation specialist with Alberta Agriculture, says the extremely dry mid-season conditions make it even more important that farmers do not cultivate.

"Tillage of minimally protected soils will render them susceptible to a repeat of the severe wind erosion of this spring when approximately one million acres in Alberta blew badly," Mr. Timmermans says.

Farmers are anxious to salvage what they can from stunted and shrivelled crops. Recently announced changes to the Alberta Hail and Crop Insurance Corporation policy will help farmers to do so.

Alberta's minister of agriculture, LeRoy Fjordbotten, reminds farmers that they still must have proper approval from the insurance adjustor before taking emergency action such as cutting for silage or converting to pasture. If crops are cut for feed, fields should not be cultivated or worked under afterward.

Mr. Timmermans suggests farmers use alternatives to tillage.

"After cutting for silage, just leave the remaining stubble," is his first suggestion. "If it rains, there could be some second growth for pasturing. If it does not rain, the protective aspect of the stubble is critical. If the crop does not grow, neither will weeds."

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Alberta

AGRICULTURE
Print Media Branch

Drought Strategies For Farmers (cont'd)

Another possibility is to pasture the fields rather than turn them under.

"If pasturing is not feasible, leave the standing crop in the field. Again, if it rains, some second growth for feed may occur. If not, the erosion control and moisture trapping and retention from future precipitation is much better with the crop standing," he says.

If weed control is necessary, Mr. Timmermans suggests mowing or chemical control rather than cultivation. Weeds cut under these dry conditions will not produce much viable seed.

If cultivation is judged absolutely necessary, then confine the tillage to the most weedy portions of the field rather than cultivating large fields entirely.

"Especially avoid cultivating those areas in fields which are particularly susceptible to erosion such as hills and sandy areas," he says.

In anticipation of scarce feed supplies, farmers are encouraged to gather feed from roadsides and sloughs. Lower quality feeds are quite acceptable in a maintenance ration for bred cows, if supplemented with small amounts of grain.

Don Milligan, Alberta Agriculture's livestock nutrition specialist at Airdrie, suggests that calves have the greater need for quality feed, so early weaning should be considered. If cropped fields are going to be pastured this summer, then the calves should be given first consideration. He cautions that nitrate levels in green crops should not be overlooked. Drought-stressed crops can on occasion accumulate potentially harmful nitrate levels.

July 30, 1984

3

FOR IMMEDIATE RELEASE

FEEDGRAINS OUTLOOK

A strong southern Alberta demand for barley should see barley prices holding up right through harvest. While barley crops in the south of the province have been hurt by the drought, good yields in the central and Peace River regions should keep the Alberta barley production up at similar levels as last year.

Dwayne Couldwell, grain marketing economist with Alberta Agriculture, says feedgrain supplies are tight and prices should be good, especially in the local Alberta markets. One problem will be that much of the barley will be out of position. The greatest demand will be in the south of the province, especially for feed weight barley, while the bulk of the barley crop will be in the north.

Prices on the futures market may not be as strong as on the local market because of strong competition from a good corn crop which is expected in the United States cornbelt. Unless extreme weather conditions occur which drastically reduce the U.S. crop, Mr. Couldwell predicts that the U.S. corn crop will be substantially greater than last year — up by as much as 33 per cent. This large crop could push U.S. corn prices down.

Mr. Couldwell notes that the carryover of barley from the previous crop year is not large. Given that the Canadian barley crop is not predicted to rise, there will be an overall tightness of barley which should extend well into next year. The outlook for 1984-85, therefore, is pointing toward stronger non-board barley prices that will continue to exceed those of last fall.

- 30 -

This article is based on information that was current to July 25, 1984.

July 30, 1984

FOR IMMEDIATE RELEASE

OILSEED OUTLOOK

The oilseed crop on the prairies is predicted to be good — 3.3 million tonnes total Canadian production. This will be close to a record crop, which could result in burdensome supplies at harvest.

However, Dwayne Couldwell, Alberta Agriculture's grain marketing economist, points out that there is a very low carryover from last year and that demand is expected to be strong, both on the export market and for the domestic crush trade. "There should be very little to prevent canola exports from rising to 1.6 million tonnes," says Mr. Couldwell. "Domestic crush demand is projected to reach 1.3 million tonnes."

The overall effect of this situation will be wide basis levels at harvest time. The basis level is the difference between the futures price and the elevator price — in essence the marketing fee. Mr. Couldwell explains that when there are large supplies, as are expected this fall, there are usually higher marketing fees. The large harvest is also likely to cause elevator congestion.

Later in the year, however, the increases in exports and domestic crush will relieve the situation, Mr. Couldwell predicts. "The 1984-85 carryover will be higher than this year's but still at a very manageable level of 450,000 tonnes. Quotas are opening at 10 bushels and should open frequently throughout the year. The Canadian Wheat Board will be following a new policy of larger canola quotas in an attempt to allow the industry to control the rate of deliveries."

In view of the uncertainty of the size of this year's U.S. soybean crop and the large size of the Canadian canola crop, Mr. Couldwell believes farmers should pre-sell or hedge a portion of this year's production. "By hedging 50 per cent of your crop, you will have an

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- 2 -

Oilseed Outlook (cont'd)

excellent return at historically high levels. If the U.S. soybean crop develops weather related problems, you still have half your crop unpriced to take advantage of unexpected rallies," is his advice to farmers.

- 30 -

This article is based on information that was current to July 25, 1984.

FOR IMMEDIATE RELEASE

FARM SAFETY WEEK – JULY 25 TO 31

Stan Wiskel, a farmer, still has all his limbs and an accident-free record because he takes no chances.

"I understand the technical aspects of farm equipment and I know it's not safe to take short cuts," Mr. Wiskel, who farms in the Boyle area, says.

Farming safely is the focus of Farm Safety Week, July 25 to 31, 1984.

Farmers with excellent safety records are being asked to talk about their approach to safe farming.

While Mr. Wiskel does all he can to ensure he has no accidents, he is critical of the design of some farm equipment.

He cites balers and combines as two examples. "Balers plug; farmers try to unplug them," he says. "There's no sense in telling farmers not to. Instead there should be a built-in mechanism to unplug the machine." He says the same is true of combines.

Another example of poor design in farm equipment, Mr. Wiskel says, is the drawbar assembly on big four-wheel drive tractors. It is impossible to see the drawbar from the tractor when hitching up an implement. "The only choice a farmer has is to have someone hold up a pin while the tractor driver tries to wiggle into a blind corner."

Mr. Wiskel feels a big step forward in farm safety would be to see that design improvements are incorporated into farm machinery.

In 1981, Alberta Agriculture's farm safety program implemented Project I.D.E.A. (Implements Designed to End Accidents) and solicited suggestions from farmers to determine what design modifications to farm implements would make them safer to operate without curtailing their function.

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Farm Safety Week — July 25 to 31 (cont'd)

That particular project ended in the fall of 1981, but Solomon Kyeremanteng, manager of the farm safety program, continues to welcome any suggestions about how to make Alberta farms safer.

Mr. Kyeremanteng is particularly encouraged by the reduction of the number of farm accidents involving children. "In 1981 there were 16 fatal accidents involving children. In 1983, that number was reduced to one. The number of child disabling injuries has also declined," he says.

Farm families are to be commended, Mr. Kyeremanteng says, for making their farms a safe place in which to work and to raise their families.

July 30, 1984

FOR IMMEDIATE RELEASE

SOUTHERN ALBERTA FOOD PROCESSORS
RECEIVE FINANCIAL ASSISTANCE

Three Alberta food processors will invest over \$700,000 in the Lethbridge area with the aid of a federal-provincial government assistance program. The assistance was made possible under the Nutritive Processing Assistance Agreement.

The offers of assistance were announced today by Ed Lumley, federal industry minister, and by the Honourable LeRoy Fjordbotten, Alberta's minister of agriculture.

Alberta Dehydrating Company Limited owns and operates an alfalfa pelleting plant at Vauxhall. The company will use an offer of \$89,000 to construct new storage buildings and replace existing equipment. The modernization, estimated at \$445,000, will improve the plant's pelletizing efficiency and accommodate increasing storage requirements. Three jobs are expected to result from the project.

Glen and Bart Atwood, operating NTM Salt Company in Cardson, blend and bag salt for use primarily in feed rations. An offer of financial assistance, totalling \$16,678, will allow the firm to buy salt in bulk hopper-type trailers for the purpose of blending other trace minerals into a custom salt mix to meet specific customer needs. In addition, the salt mix will be bagged and distributed to existing and new markets. The project will cost approximately \$59,000 and is expected to create eight full-and part-time jobs.

Central Alberta Dairy Pool has accepted an offer of \$29,925 to upgrade its wastewater treatment and disposal system at its cheese manufacturing operation located at Glenwood. Total cost of the project is estimated at \$199,500.

Since the Nutritive Processing Agreement was signed in 1975, more than \$24 million has been offered to food processors in rural Alberta.

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Southern Alberta Food Processors Receive Financial Assistance (cont'd)

A one-year extension to the Nutritive Processing Agreement was recently signed by the two governments. The extension allows applicants until September 30, 1985 to apply for assistance.

The agreement is jointly administered and equally funded by the federal Department of Regional Industrial Expansion (DRIE) and Alberta Agriculture.

For further information contact Dr. J.E. Wiebe, Executive Director, Rural Development, Alberta Agriculture, (403) 427-4287.

July 30, 1984

FOR IMMEDIATE RELEASE

CENTRAL ALBERTA COMPANIES BENEFIT FROM
GOVERNMENT ASSISTANCE

Three firms will benefit from federal-provincial government financial support totalling \$65,218. One company will be establishing in Barrhead, one in Ardrossan, while the third will modernize an existing facility in Mundare. The assistance was made possible under the Nutritive Processing Assistance Agreement.

The offers of assistance were announced today by Ed Lumley, federal industry minister, and by the Honourable LeRoy Fjordbotten, Alberta's minister of agriculture.

Stawnichy's Holdings Ltd. of Mundare has accepted an offer of \$43,657 to modernize its meat processing facility. Owned by Edward Stawnichy, the company will purchase and install three new smokers and other related equipment and renovate the building's interior. Mr. Stawnichy hopes to hire an additional person as a result of the project.

A bakery located in Barrhead has accepted an offer of assistance totalling \$12,495. Bachmier Investments Ltd. will establish an in-store bakery with floor space of approximately 5,000 square feet. Expected to cost \$78,000 and to create six jobs, the bakery will provide baked goods to this rural community.

Terry and Val Symborski will use assistance totalling \$9,066 to establish a meat processing facility in Ardrossan. The new facility, trading under the name of Country Style Meats, will produce a variety of sausage products as well as custom meat cutting and smoking. The total cost of the project is estimated at \$41,000 and is expected to create two part-time positions.

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- 2 -

Central Alberta Companies Benefit From Government Assistance (cont'd)

Since the Nutritive Processing Agreement was signed in 1975, more than \$24 million has been offered to food processors in rural Alberta.

A one-year extension to the Nutritive Processing Agreement was recently signed by the two governments. The extension allows applicants until September 30, 1985 to apply for assistance.

The agreement is jointly administered and equally funded by the federal Department of Regional Industrial Expansion (DRIE) and Alberta Agriculture.

- 30 -

For further information, contact Dr. J.E. Wiebe, Executive Director, Rural Development, Alberta Agriculture, (403) 427-4287.

July 30, 1984

FOR IMMEDIATE RELEASE

LAND RECLAMATION RESEARCH FIELD DAY

Current land reclamation research plots will be on display August 16, 1984 at the Battle River soil reconstruction plots. The field day is open to interested members of the public.

The purpose of the field day is to illustrate the current reclamation research program which is determining ways that agricultural capability can be restored to lands that have been disturbed by coal development or other activities.

The field day program will include short talks from major reclamation researchers in Alberta and an opportunity to view the Battle River soil reconstruction plots.

Interested people are invited to meet at Big Knife Provincial Park at 9:30 a.m. August 16. Shuttle vehicles will transport participants to the plots. To ensure enough shuttle vehicles will be on hand, those planning to attend are asked to notify the land use branch of Alberta Agriculture, 427-5359. Bring a bagged lunch; refreshments will be served.

The field day is jointly sponsored by Alberta Agriculture, Alberta Energy and Natural Resources, Alberta Environment and Alberta Power Ltd.

- 30 -

July 30, 1984

FOR IMMEDIATE RELEASE

FARM FUEL ELIGIBILITY DECLARATION
SIMPLIFIED FOR FARMERS

Declaration of Alberta Farmer forms, required under the Alberta farm fuel distribution allowance program, need not be renewed this year, says Provincial Treasurer Lou Hyndman.

Although the current form indicates an expiry date of December 31, 1984, Mr. Hyndman said the deadline has now been extended to the end of 1985.

The purpose of the forms, which farmers must file with their bulk agents to qualify for reduced prices on marked farm fuel, is to ensure that qualified farmers benefit from the \$75 million program which reduces the cost of fuel to Alberta farmers by seven cents on every litre. No other province has such a program.

"Other means can be used to check eligibility and information is reasonably current this year so we can avoid adding to the paperwork of farmers and bulk agents by asking them to renew their declarations," Mr. Hyndman concluded.

- 30 -

July 30, 1984

FOR IMMEDIATE RELEASE

PREMIER SAYS GRAIN FREIGHT RATES SHOULD NOT INCREASE

Peter Lougheed, Premier of Alberta, has called upon Prime Minister John Turner to rescind the proposed increase in grain freight rates for western farmers, scheduled for August 1, 1984.

The proposed increase of \$1.90 per tonne is approximately 33 per cent above existing grain freight rates for the shipment of grain through Western Canada.

There are two reasons why the increase should be rescinded, stated Mr. Lougheed. "First, rates are established under the new Western Grain Transportation Act on the basis of a forecast volume for the crop year commencing August 1, 1984. Having regard to the extreme drought conditions being experienced in the southern prairies, this forecast is unrealistic. Hence there would be overpayment by the farmers and although the amount would be repaid some time later it is not fair for farmers facing a difficult cash flow position to have to make an obvious overpayment."

"Secondly, farmers' cash flow and net income have been declining as a result of a number of factors including the Canadian Wheat Board's position on initial prices for the forthcoming crop year. This is just not the time to increase freight rates for Canadian farmers."

The Premier noted that the volume cap of 31.5 million tonnes complicates the grain rate setting process, as was expressed by the Western Premiers in their communique from Kelowna on May 8, 1984.

- (cont'd) -

- 2 -

Premier Says Grain Freight Rates Should Not Increase (cont'd)

In addition, the 31.5 million tonne cap was legislated by the federal government to limit their expenditures. The effect of this cap, coupled with an under-estimate of 1983/84 shipments, is largely responsible for the announced \$1.90 per tonne increase in the freight rate paid by farmers.

Given the serious drought situation, it is expected that grain shipments will fall well below the 31.5 million tonne cap in 1984/85. Therefore, the current federal estimate of 31.8 million tonnes to set the 1984/85 rate is unrealistic and will result in overpayment to the railways for each tonne moved. There will be a substantial cost saving to the federal government because of the reduced tonnage shipped.

Said Premier Lougheed, "These concerns were recognized by the Alberta government some time ago and addressed in our submission of August 1983 to the House of Commons Standing Committee on Transport. At that time we proposed the removal of the 31.5 million tonne cap, that the majority of the crow benefit be paid directly to the producer, and that freight rates be based on the farmer's ability to pay."

Two important factors are becoming more and more evident, added Mr. Lougheed. "Firstly, if the recommendations of the Alberta government would have been accepted, we would have federal legislation today that is responsive to the farmer's current needs. Secondly, in light of the fact that there will be considerable cost savings to the federal government due to reduced tonnage, these savings should be used to offset the scheduled increase being forced upon farmers at a time when they can ill afford increased input costs."

The Premier stated that the circumstances facing farmers today demonstrate the need for major changes to the Western Grain Transportation Act, as noted by the Western Premiers in their communique of May 8th.

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- 3 -

Premier Says Grain Freight Rates Should Not Increase (cont'd)

The Premier further pointed out that the railways have reduced their expenditure projections for upgrading and expansion of rail capacity, yet the legislation does not provide for an immediate corresponding cost reduction for farmers.

"Farmers cannot be expected to pay unnecessary and unwarranted freight increases when they can't afford them. The federal government should take immediate corrective action to rescind the proposed grain freight rate increase," said Premier Lougheed.

- 30 -

CTV 1984

August 6, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Why Chloramphenicol Is A Prescription Drug	1
Lightning Damage In Trees And Field Crops.	3
Potato Growers Asked To Look For Corky Ring Spot	5
Algae Control In Farm Ponds And Dugouts	8
Constructing A Cistern	10
Results Of Custom Livestock Operations Survey.	12
Beaver And Wolf Control On Private Land	15
Proper Stage To Swath Canola	16

Phone: (403) 427-2121

Alberta
AGRICULTURE
Print Media Branch

FOR IMMEDIATE RELEASE

WHY CHLORAMPHENICOL IS A PRESCRIPTION DRUG

Although chloramphenicol has long been a prescription drug, some farmers don't understand why restrictions apply to this particular antibiotic.

"The main reason," explains Dr. Palechek, extension veterinarian with Alberta Agriculture, "is to safeguard the health of both man and animals because chloramphenicol is a potentially dangerous drug for cattle, stockmen and the public."

This particular antibiotic is associated with aplastic anemia in sensitive individuals, a condition which is highly fatal. Cells damaged in the bone marrow result in altered blood components. Symptoms of this disease, says Dr. Palechek, include depression, lethargy, loss of appetite, and loss of recent memory. Victims that recover from this disease have a high incidence of leukemia.

Most toxic agents are dose dependent in that higher exposure results in greater risk. However, Dr. Palechek points out, unlike the usual pattern, chloramphenicol is not dose dependent and exposure to very low levels involves risk.

"It has been reported that a rancher developed aplastic anemia four months after treating his cattle with chloramphenicol. This disease has been reported in man following administration of topical chloramphenicol eye drops," the veterinarian says. "These reports raise concern that aplastic anemia could occur in susceptible individuals exposed to low levels of chloramphenicol as residues in meat and milk."

Since the first report of chloramphenicol-induced anemia in 1950, there have been more than 700 cases reported in the United States. For this reason the Americans have recently banned chloramphenicol for use in food animals. This drug remains available for use in food animals in Canada, but on a prescription basis only.

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Why Chloramphenicol Is A Prescription Drug (cont'd)

Chloramphenicol can also be a health concern in animals. Toxicity problems result when this drug is used improperly. Administration of more than 50 mg/kg to calves less than a week of age can cause diarrhea and death in some cases. Death has occurred in baby pigs following administration of as little as 1 mL. Even if the 200 mg/mL solution is used, this is at least four times the recommended dose. Dosage, treatment interval, age and route of administration all affect the usefulness of this powerful drug.

Dr. Palechek goes on to say that new detection methods indicate that calves eliminate chloramphenicol from their blood slower than originally believed. Over the past three years American veterinary inspectors have detected chloramphenicol residues in less than one per cent of calves sampled. However, no tissue residues are acceptable because of the risk of sensitive individuals to this drug.

"It is apparent that chloramphenicol must remain a restricted drug," Dr. Palechek says. "The instructions on the prescription must be strictly adhered to whenever chloramphenicol is used. Never exceed the recommended dose because this can cause illegal residues beyond the specified withholding time."

The veterinarian advises farmers to keep a permanent record of each treated animal including date, time, dose, route of administration and name of person administering the dose.

"Mark all treated animals and keep herdsman informed of treatment schedules. Milk treated cows last to avoid contaminating milking equipment. Discard all milk from treated cows for the specified withholding time. Avoid sending cull animals to slaughter that may contain drug residues."

His last instruction may be the most important. "Remember to protect yourself from accidental exposure to chloramphenicol, particularly when administering this drug."

FOR IMMEDIATE RELEASE

LIGHTNING DAMAGE IN TREES AND FIELD CROPS

Lightning can cause damage, not only to trees but to field crops as well.

Dr. Ron Howard, plant pathologist at the Alberta Horticultural Research Center in Brooks, says the symptoms of lightning damage vary according to the type of plant struck.

Electrical discharges during storms occasionally strike shelterbelts and shade trees. Dr. Howard says those trees in exposed locations, such as open fields or on hilltops, or trees above the forest canopy are most commonly struck. Injury from lightning is variable, ranging from the explosion or burning of the entire tree to minimal damage to the trunk and roots. In many cases, however, Dr. Howard notes, when only minor injury is evident on the trunk, considerable damage may have occurred to the roots.

Field crops can also be damaged by lightning. Severity of injury is influenced by the amount of moisture in the field and in the plant. The higher the moisture content, the greater the damage is likely to be, Dr. Howard explains.

Field crops struck by lightning may show various patterns of injury. There may be areas in which all plants are killed adjacent to clearly defined areas of healthy plants; areas with dead plants at the centre and progressively reduced injury toward the periphery; poorly defined areas with no focus of injury, in which plants with varying degrees of injury are scattered among dead plants and unaffected ones; or a number of scattered, relatively small areas containing several plants in various stages of injury.

These variations result from differences in intensity of electrical discharge and from variations in soil moisture, Dr. Howard says. The area of affected plants is usually circular in shape but varies in circumference. Electrostatic discharge can be conducted along irrigation pipes, causing damage in those plants closest to them.

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Lightning Damage In Trees And Field Crops (cont'd)

The extent to which plants may be expected to recover from lightning damage depends upon the severity of injury. In the case of field crops, about all that can usually be done is to apply standard cultural practices during the remainder of the growing season.

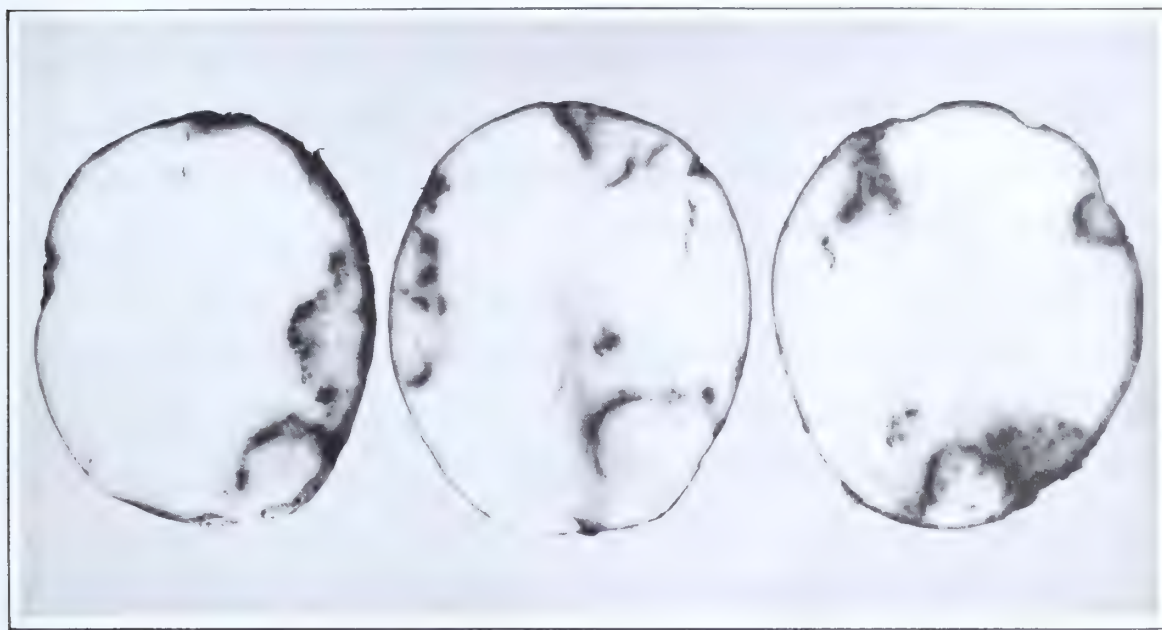
Trees injured by lightning should be treated similarly to other stressed trees. Loose bark should be removed and injured bark cut back to healthy tissue. The injured tree should be fertilized with compounds low in nitrogen but high in phosphorus, and watered during dry spells.

Frequently, trees may be subject to repeated strikes because of their exposed location and, in these cases, Dr. Howard recommends installing lightning protection. Lightning protection for trees is similar to the lightning rods that protect buildings. A copper cable is placed as high as possible in the tree and fastened with copper nails to the trunk all the way down the tree to the ground. The end of the cable is attached to a ground rod driven deep into the soil. This system, like all devices attached to living trees, should be checked periodically and adjusted to allow for growth and expansion of the tree.

August 6, 1984

FOR IMMEDIATE RELEASE

POTATO GROWERS ASKED TO LOOK FOR CORKY RING SPOT



Cross sections of potatoes with corky ring spot.

Home gardeners, commercial potato growers and market gardeners are asked to be on the lookout for corky ring spot (CRS), a serious disease of potatoes. The disease was identified for the first time in Canada last year and staff members at the Alberta Horticultural Research Center (AHRC) in Brooks are trying to determine how widespread it is.

Dr. Ronald Howard, plant pathologist at the center, says he is concerned about the impact which CRS could have on the potato industry in Alberta, particularly on seed growers. He's therefore anxious that all cases be identified and appropriate treatment applied.

Known as "spraing" in Europe, where the disease is widespread, CRS is considered one of the most important virus diseases of potatoes, especially in seed production areas. It is transmitted to potato tubers by trichodoroid nematodes.

- (cont'd) -

Potato Growers Asked To Look For Corky Ring Spot (cont'd)

Dr. Howard says the symptoms on potato tubers vary depending on the degree of nematode infestation, time of infection, strain of the virus, potato cultivar, environmental conditions, such as soil moisture and temperature, and type of infection (primary or secondary). External tuber symptoms may be lacking but internal symptoms can range from prominent concentric rings of alternating living and browned tissue to small brown flecks. Some cracking and various degrees of tuber malformation follow early season infection with some strains of the virus.

Browning in the tuber flesh, explains Dr. Howard, varies from prominent arcs and rings, which usually but not always originate from surface lesions, to diffused brown flecks having no visible external involvement. Foliar symptoms are often lacking with North American strains of the virus.

Incidence of CRS is highest in sandy soils. The nematodes most commonly associated with the disease generally occur in sandy, open-textured soils and have been found at depths of over one metre.

Control of the disease is accomplished by two means: using CRS-free seed potatoes and avoiding transferring nematode-infested soils. This means, says Dr. Howard, that gardeners shouldn't use their own seed or seed from neighboring gardens. He recommends buying seed potato that is known to be free of CRS. He also says it's important that nematode-infested soil not be transferred on tools, equipment or footwear. All equipment and footwear used in infested soils should be cleaned and disinfested before being used in other areas.

In an effort to determine how widespread the disease has become, a survey for CRS is being carried out in Alberta this summer. Anyone finding suspect tubers is asked to submit a sample for examination. Potatoes should be individually wrapped in dry newspaper,

Potato Growers Asked To Look For Corky Ring Spot (cont'd)

tissue paper or paper towelling and packed in a sturdy box or similar container. Dr. Howard requests that tubers not be wrapped in plastic, cellophane wrap or a plastic bag. Whenever possible the sample should be sent through an Alberta Agriculture district office.

In all cases, the following information should accompany the sample: name, address and telephone number of the sender; potato variety; extent of the disease (per cent of tubers with symptoms); seed source; and how long the disease has been known to occur in the garden or field in question. Samples should be sent the Alberta Horticultural Research Center, Bag Service 200, Brooks, Alberta, T0J 0J0.

All samples will be examined by AHRC staff and those with typical CRS symptoms will be sent to the Agriculture Canada Research Station in Vancouver for confirmation of the diagnosis. All submissions will be replied to in writing and all positive cases will be followed up by telephone or in person by AHRC staff who will advise growers on appropriate control measures.

FOR IMMEDIATE RELEASE

ALGAE CONTROL IN FARM PONDS AND DUGOUTS

Warm, sunny weather encourages algae in farm ponds to multiply rapidly and accumulate in large masses. Unless controlled, algae can plug pipes, pumps and cause the water to have an unpleasant odor and taste.

The filamentous group of algae form dense mats or scum on the surface of the water. These mats begin to form near the pond bottom and will rise to the surface during hot, sunny weather. The algae filaments can block irrigation intakes, pumps and sprinkler heads.

Phytoplankton algae are free-floating plants that occur in the upper two metres of water. During hot, sunny days, thick pea soup-like 'blooms' may form. These blooms seem to be triggered by low dissolved oxygen levels in the water and by the introduction of nitrates or phosphates into the water. Death and decay of these massive algal populations lead to even more serious deoxygenation, leaving the water with a foul taste and odor. Some blue-green algae can release toxins into the water that may kill fish, aquatic wildlife and livestock.

Although algicides and certain aquatic herbicides may provide a short-term cure to algae problems in ponds and dugouts, Rudy Esau, Alberta Agriculture's weed control specialist at Brooks Horticultural Center says prevention is the best solution. The cost of improving a pond will be more than recovered from reduced maintenance costs in the years to come.

Mr. Esau says there are two main preventative measures. First, he says to limit the introduction of nutrients into the pond. Control pond-bank vegetation and, if possible, fence the pond off to reduce the introduction of organic matter which will decay. Stabilize the banks to prevent runoff which may carry leaves, grass and topsoil into the dugout. He notes that rocks and gravel along the shoreline will act as a natural filter and reduce soil erosion.

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Algae Control In Farm Ponds And Dugouts (cont'd)

The second preventative measure is to oxygenate the water periodically. Use an irrigation pump to suck water from one end of the pond and release it as a fountain at the opposite end. This procedure oxygenates, circulates and cools the water. Aeration once or twice a week during hot, sunny weather will prevent stagnation and reduce algae bloom.

If preventative measures aren't totally effective, then chemical controls can be used. A number of chemicals are recommended for the control of algae in contained, privately owned ponds and dugouts.

Copper sulphate (blue stone) is a soluble crystal which will control most forms of algae when applied at the rate of 0.5 to 1.0 ppm. Apply copper sulphate on three to four successive days for more effective control.

Cutrine (copper triethanolamine) is a liquid material which remains in solution, even in hard water, and will control a broad range of algae. Apply in dilute water solution sprayed over the water surface. . Cutrine may be toxic to fish if used above the recommended label rates or if used in soft water.

Reglone A (diquat) is a non-volatile, fast-acting contact herbicide for the control of aquatic plants and algae. Diquat is a contact weed killer and therefore should be applied when plants are actively growing, normally June through early July. Repeat treatments may be required if growth reappears.

The amount of chemical one should apply depends upon the volume of water to be treated and the rate of application of the chemical. For assistance in determining the rates or volume of your pond or dugout, please contact your Alberta Agriculture district agriculturist or the weed control specialist, Alberta Horticultural Research Center, Brooks.

August 6, 1984

FOR IMMEDIATE RELEASE

CONSTRUCTING A CISTERN

If you have a shortage of water on your farm, you might be wise to buy a precast concrete or fibreglass cistern or you could make your own cistern.

Bob Buchanan, Alberta Agriculture's engineering technologist at Barrhead, says you can make a cast-in-place cistern with home-made forms, but you must use steel reinforcing rods to prevent it from collapsing. He recommends a ready-mix concrete of 25 mPa strength with a two per cent air entrainment, and you can make the lid with either reinforced concrete or with pressure-treated lumber. Remember to make a manhole in the lid so that you can get into the cistern.

You should use a shallow well jet pump to pressurize the water as it is taken from the cistern, and the cistern should have a sump or a sloped floor so that it can be properly cleaned.

To waterproof a cast-in-place cistern, patch any porous areas in the walls or on the floor with a cement or mortar mix. An alternative would be to seal the entire interior surface with an asphalt-base paint, waterglass (sodium silicate) or a commercial silicon-based compound.

Another alternative would be to use a plastic or butyl rubber liner. It can be bonded to the interior surfaces of the cistern with an adhesive, and it can either be made on the site by sealing the pieces together with a special adhesive compound or you can have it custom-made. Mr. Buchanan says care must be taken when installing a liner so that it does not get punctured by rough places on the walls or floor of the cistern.

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Constructing A Cistern (cont'd)

The following table shows the water requirements per day of human beings and various types of livestock.

Human	250 L
Dairy Cow	160 L
Beef Cow	70 L
Horse	55 L
Hog	25 L
Sheep	15 L
100 Turkeys	55 L
100 Chickens	40 L

To disinfect a newly installed cistern, scrub the interior with a solution of 15 mL household bleach in 10 L water. Then hose the interior of the cistern down and drain out the water.

Mr. Buchanan recommends cleaning and disinfecting cisterns every year. This can be done by adding 40 mL of household bleach to every 1,000 L of water. The bleach will oxidize and settle out any iron that is in the water as well as control any odor.

- 3 -

Results Of Custom Livestock Operations Survey (cont'd)

Custom Corral Cleaning

<u>Type of Equipment</u>	<u>Range 1983</u>	<u>Range 1984</u>
Loader, 3 spreaders, 3-4 operators	—	\$145/hr
Loader, 2 spreaders, 2-3 operators	\$90-\$160/hr	\$140/hr
Loader, 1 spreader, 1-2 operators	\$40-\$65/hr	\$100/hr

The most common price from the survey is \$35-\$45 per unit/hour which includes the operator's labor.

Ms. Johnson says the survey data summarized in the above tables were obtained by contacting custom operators and that the information represents actual charges. She stresses, however, that varying conditions and circumstances can significantly affect the rates that are charged.

Further information on 1984 custom rates and a copy of the livestock survey can be obtained from district agriculturists, Alberta Agriculture's statistics branch in Edmonton (427-4018) or the farm business management branch in Olds (556-4240).

- 30 -

August 6, 1984

FOR IMMEDIATE RELEASE

RESULTS OF CUSTOM LIVESTOCK OPERATIONS SURVEY

The results of a survey on livestock services custom rates have been released by Alberta Agriculture's statistics branch and the farm business management branch. The survey was conducted during May and June of 1984.

The following table contains a summary of the custom feedlot survey.

	<u>Custom Cattle Feeding</u>	
	<u>Range 1984</u>	<u>Most Common 1984</u>
Feed charges		
Barley	5.0¢ to 7.12 ¢/lb	5.5¢ to 6.5¢ /lb
Silage	1.15¢ to 3.5¢ /lb	1.25¢ to 1.75¢ /lb
Minerals	9¢ to 12 ¢/lb	—
Total prepared ration	4.20¢ to 8 ¢/lb	—
Yardage	0 to 20 ¢/day	13¢ to 16 ¢/day
Bedding	\$22 to \$75/ton	\$30 to \$50/ton
Total cost/lb of gain	43 ¢ to 98 ¢/lb	50 ¢ to 65 ¢/lb

Peggy Johnson of Alberta Agriculture's farm business management branch suggests the variability in feed prices can be explained by several factors: feed quality, moisture content, whether or not milling price is included in the barley price, and the varying feed price mark-ups feedlots have used to cover their costs. She says that usually when feed price mark-ups are low, the yardage fee is higher to cover feedlot costs, and vice versa.

Total cost per pound of gain depends on feed cost, which represents 70 to 75 per cent of the total cost of gain, and on other factors including feed conversion efficiency, interest rates, yardage, cost of medicine and vet fees, and bedding.

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- 2 -

Results Of Custom Livestock Operations Survey (cont'd)

Other data that have been collected on livestock services custom rates are summarized in the following tables.

Custom Fencing

	<u>Range 1983</u>	<u>Range 1984</u>	<u>Most Common 1984</u>
4 wires (labor & equipment	\$1.40-\$1.50/ft	\$550-\$2,560/mile	\$920-\$1,450/mile
Chain link (labor & equip.)		\$1.50-\$3.00/ft	\$1.50-\$3.00/ft
Plank (labor & equip.)		\$8.25-\$50/hr	\$45-\$50/hr
Fence removal (barbed wire)	\$350-\$1,500/mile	\$350-\$720/mile	\$400-\$550/mile
Post pounding	\$50/hr	\$25-\$55/hr	\$42-\$50/hr

Grain Processing

<u>Processing</u>	<u>Most Common 1983</u>	<u>Range 1984</u>	<u>Most Common 1984</u>
Grinding	\$9.00-\$13.00/tonne	\$6.50-\$20.00/tonne	\$8.00-\$12.00/tonne
Dry rolling	\$9.00-\$11.00/tonne	\$6.50-\$15.00/tonne	\$8.00-\$12.00/tonne
Steam rolling	—	\$15.00-\$19.80/tonne	\$15.00-\$18.00/tonne
Pelleting	—	\$15.00-\$38.60/tonne	\$18.00-\$30.00/tonne

Livestock Hauling

<u>Miles</u>	<u>Possum Belly Liner</u>	<u>Straightliner</u>	<u>Body Truck</u>
0-50	\$100-\$200/load	\$85-\$185/load	\$25-\$150/load
50-100	\$240-\$300/load	\$200-\$275/load	\$200-\$300/load
100-200	\$480-\$550/load	\$230-\$460/load	\$200-\$400/load
200+	\$2.25-\$2.75/loaded mile	\$1.75-\$2.50/loaded mile	\$2.00/loaded mile

- (cont'd) -

August 6, 1984

FOR IMMEDIATE RELEASE

BEAVER AND WOLF CONTROL ON PRIVATE LAND

An amendment to the Game Hunting Regulations permits landholders to control wolves and beavers on private land.

The new regulation allows landowners to hunt or trap beaver and destroy any beaver house or dam on private land between April 1 and November 1.

The fish and wildlife division of Alberta Energy and Natural Resources in co-operation with Alberta Agriculture and municipalities handles approximately 3200 beaver complaints per year. It is anticipated that with the new regulation landowners will take action as problems arise and significantly reduce the public cost associated with beaver control.

The new regulation regarding wolf control is expected to decrease livestock depredation and claims for compensation. The regulation allows landowners to hunt wolves, during all seasons and without a licence, on their land and on any land within five miles as long as permission is obtained. This provision also applies to anyone who is authorized to maintain livestock on public land. The use of traps is not permitted. The regulation will allow livestock producers to take immediate action against wolves in close proximity to cattle.

The skin or pelt of any wolf or beaver taken under the authority of this new regulation may be sold to a purchaser who is authorized by The Wildlife Act to purchase that pelt or skin.

August 6, 1984

FOR IMMEDIATE RELEASE

PROPER STAGE TO SWATH CANOLA

To determine when a field of canola is ready to swath, plants from different parts of the field must be examined, says Phil Thomas, supervisor of oilseed crops for Alberta Agriculture.

The stage of maturity in an evenly maturing field will vary from plant to plant and from area to area within the field. When examining the plants, take into account varying soil types, low lying areas, and exposed early ripening areas. Inspections every two to three days should begin when the crop changes from green to yellow-green. Mr. Thomas recommends inspection every day in hot dry weather.

The color of the seed is more important than the overall color of the field in determining the stage of maturity. The best time to swath for optimum seed yield and quality is when all the seeds contain about 30 to 35 per cent moisture. The color of the seeds is a good indicator of seed moisture content. Seeds in all pods on a plant complete filling (physiologically mature) at about 40 per cent moisture and then slowly turn from green to light yellow or reddish brown to brown, depending on the variety. Once filled the seeds rapidly lose moisture at about two to three or more per cent per day, depending on the weather.

Examine only those pods on the main stem, Mr. Thomas says. Seeds in pods on the bottom third of the main stem were formed earlier and will turn color much sooner than seeds in the pods of the top third of the plant. When the overall moisture content of seed from the total plant averages 30 to 35 per cent, about 30 to 40 per cent of the seeds in pods on the main stem only will have changed color or have started to change color. Seeds with only small patches of color should be counted as color changed.

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Proper Stage To Swath Canola (cont'd)

Most of the color-changed seeds will be from the bottom third of the main stem in Argentine varieties, while in Polish varieties some seed color change will also have occurred in the middle and upper pods. When seeds in the bottom pods turn color, seeds in the top, last-formed pods are filled or nearly filled. Most of the seeds will be firm, and roll as opposed to break, when pressed between the forefinger and thumb.

Swathing when 30 to 40 per cent of seeds in pods on the main stem have changed color will, in most years, allow the seed to cure and change color fairly slowly in the swath. Very hot and dry windy conditions after swathing may dry up stems before the moisture and nutrients get a chance to move into the seeds to finish curing them. This may result in some immature seeds with green color.

"Normally, seeds which average 30 to 35 per cent moisture contain only small quantities of chlorophyll, and in most years, swathing at this time causes no yield loss or green seed problems," Mr. Thomas says.

Swathing earlier at a higher moisture content will result in lower yields; immature seed may shrivel and green seed may become a problem. On the other hand, swathing later when seed moisture content is much lower, around 20 per cent, results in fluffy swaths susceptible to blowing and increased shattering. To reduce shattering losses, Mr. Thomas suggests swathing over-ripe fields when humidity is high, e.g., after a rain, when there is a heavy dew, or at night.

In high yielding crops which are lodged, the seed on the upper side of the stem will mature ahead of that shaded from the sunlight but in the same section of the stem. Under these conditions, Mr. Thomas says to swath when about 40 to 50 per cent of the seed in the exposed pods have turned color.

Proper Stage To Swath Canola (cont'd)

“Determining when to swath in unevenly maturing fields is much more difficult” Mr. Thomas says. “Uneven maturity is usually the result of uneven spring germination.” He says to evaluate the stage of maturity of most of plants. Seeds with a high moisture content (over 40 per cent) from swathed immature plants in an uneven maturing field will ripen in the swath unless they are frozen or dried up by very warm weather. If the weather is warm, it may be advisable to swath when most of the seeds have a low moisture content so that the immature plants have a chance to mature further.

SEP 1984
OCT 1 1984

August 13, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Alberta Government To Assist Alberta Farmers	1
Premier Disappointed With Grain Freight Rate Increase	4
Feeding Cereal Forage	5
Hawaiian Pork Market Success	8
Swarming Bees Causing Concern For Homeowners	10
Seasonal Anestrus In Swine	12
Replacing Farm Machinery	14
Agricultural Financial Management Program Offered In Lethbridge And Fairview	16

Phone: (403) 427-2121

Alberta
AGRICULTURE
Print Media Branch

August 8, 1984

FOR IMMEDIATE RELEASE

ALBERTA GOVERNMENT TO ASSIST ALBERTA FARMERS

The Honourable LeRoy Fjordbotten, Alberta's minister of agriculture, has stated that the government of Alberta is taking a number of actions to assist Alberta farmers.

"The southern part of the province is experiencing drought conditions and all producers are affected by soft world commodity prices, restrictions in cash flow and declining incomes," said the minister. "Compounding these conditions is an increase in freight rates under the Western Grain Transportation Act."

In response, Mr. Fjordbotten announced a number of Agricultural Development Corporation (ADC) initiatives as one of a series of actions by the government of Alberta. ADC works with Alberta farmers to meet their current credit needs and the implementation of the following program changes will offer producers attractive additional options:

- Reamortization of arrears on ADC direct farm loans.
- Guaranteeing small business bonds obtained from commercial lenders.
- Trade account debt consolidation through Alberta farm development loans.
- Fixed rates financing option through Alberta farm development loans.

"These changes are designed to improve producer access to operating credit and to provide relief to ADC borrowers currently experiencing cash flow problems. In some cases the changes will also reduce farm debt interest costs," said the minister.

In announcing the ADC program changes, Mr. Fjordbotten noted that ADC's direct loan and loan guarantee portfolio currently exceeds \$1 billion. The size of this portfolio places a heavy responsibility on the corporation to manage these funds in the best interest of agriculture.

- (cont'd) -

Alberta

AGRICULTURE

Print Media Branch

Alberta Government To Assist Alberta Farmers (cont'd)

"Credit is the cornerstone of modern agriculture and today's farmer knows he must be as diligent and resourceful in his financial management as in his crop and livestock production," said the minister.

"In this regard," he stated, "we will soon be announcing in detail an expanded counselling service to farmers who can benefit from the advice of successful producers."

Mr. Fjordbotten referred to the recent meeting of federal and provincial ministers of agriculture at which all ministers expressed an urgent need to deal with the net income and cash flow concerns currently facing the agricultural industry. They emphasized that in some cases national solutions are required to support provincial initiatives. To address both long and short term agricultural credit needs, the ministers set up a special interprovincial task force on agricultural credit. The task force will examine alternative financing mechanisms and will report to a special meeting of agriculture ministers later this year.

Mr. Fjordbotten has already expressed his insistence to the federal government that they reduce the unacceptably high interest rates charged by the Farm Credit Corporation. He is pleased that the Canadian Wheat Board will restore initial payments for wheat, barley and oats to 1983-84 levels and that interim payments will be made from the Western Grain Stabilization fund, two measures which he had previously asked the federal government to take.

Premier Lougheed had called upon Prime Minister John Turner to rescind the increase in grain freight rates for western farmers, which took effect August 1, 1984. The premier is today urging the prime minister to reconsider his refusal to freeze rates.

The extreme drought in the southern part of the province is a matter of concern for all Albertans," said Mr. Fjordbotten. "My department and I are working with representatives of the Alberta Cattle Commission, the Canadian Cattlemen's Association, the federal government and officials from the Saskatchewan and Manitoba governments to consider co-

Alberta Government To Assist Alberta Farmers (cont'd)

ordinated and appropriate assistance to livestock producers in the southern prairies. I believe this type of cooperative approach is needed if we are to find responsible solutions to current producer problems," said the minister.

Mr. Fjordbotten stated that he has already supported the request of the Alberta Feed Grain Users to the federal government that there be an immediate suspension of all feed barley shipments out of the drought-affected area and that an assessment of the available barley stocks in elevators and on farms in that area be made by the federal government. Further, the minister indicated his support for the feed grain users in their request that procedures be put in place to divert rail shipments of barley shipped from outside the affected area into the feed deficient southern part of the province. Procedures and rail freight rates should be developed to transfer barley into southern Alberta as efficiently and economically as possible.

In recognition of the threatened livestock feed shortage in southern Alberta, Mr. Fjordbotten announced two weeks ago changes in crop insurance policy which facilitate cutting insured grain crops for feed purposes. "This enables farmers to utilize their crops for feed before they completely dry out and have little feed value left," said Mr. Fjordbotten.

"The Alberta department of agriculture and the Agricultural Development Corporation will continue to monitor and respond to the problems of Alberta's number one renewable resource industry," concluded Mr. Fjordbotten.

Editor's Note: The attachment which follows gives full details about changes to ADC's programs and policies.

SPECIFIC CHANGES
TO ADC'S PROGRAMS AND POLICIES

August, 1984

ADC - A RESPONSIVE SUPPLEMENTARY LENDER

In 1984, recognizing the effects of the economy, ADC made several substantial alterations in the Beginning Farmer Program. For new borrowers the 6% beginning farmer incentive applies during the first 5 years regardless of the amount of off-farm employment. Borrowers with loans in existence on March 30th, 1984 are allowed to work off the farm two of the first three years and still remain eligible for their 6% incentive. Payment of Beginning Farmer Program incentives are now made when payments on accounts are due. These changes were made to relieve cash flow problems and help borrowers adjust to present economic circumstances.

ADC isn't just a lending institution. Its assistance doesn't stop with the signing of a loan. Rather, it is a resource to all farmers -- ADC borrowers and non-borrowers -- who seek financial counselling. The skill of managing credit must be learned. Financial planning is an essential part of modern agriculture. ADC's counselling service assists with this process and is available to farmers anywhere in the province.

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To assist farmers through this particularly difficult period of time four policy and program changes are being introduced as follows:

RE-AMORTIZATION OF ARREARS
ON ADC DIRECT FARM LOANS

In keeping with ADC's policy of doing everything possible to bridge the gap in farm credit needs, the Corporation will allow borrowers who have fallen behind in their payments to spread them over the length of the loan. This will be done in cases where it will improve the borrower's chance of success. Borrowers will be relieved of the burden of a large immediate payment, and will be able to make their payments in equal instalments over the length of the loan.

Effective immediately ADC will consider re-amortizing up to \$50,000 of past due payments per farm family provided a farm plan, acceptable to the corporation, is developed that indicates a successful operation will result. The Corporation's \$200,000 direct loan limit may be exceeded in situations where loans are re-amortized.

SMALL BUSINESS BONDS (FORMERLY
SMALL BUSINESS DEVELOPMENT BONDS)
SUPPORTED BY AN ADC GUARANTEE

The Federal Small Business Bond Program enables banks to refinance existing debt at a greatly reduced interest rate for borrowers in financial difficulty who cannot resolve their problems by other means. Effective immediately ADC will provide guarantees on an individual account approval basis to encourage the banks to make greater use of this program.

Borrowers who qualify benefit from a lower rate of interest. The rate is usually one-half of prime plus two percent for three to five years. With prime at 13.5 percent, such loans would bear interest at 8.75 percent. The use of this program also reduces the immediate debt payment requirements and improves cash flow. The refinancing involved can include bank loans guaranteed under Alberta Farm Development Loans, or Farm Improvement Loans if an extension of the term of the Farm Improvement Loan is required to improve cash flow.

ALBERTA FARM DEVELOPMENT LOAN (AFDL)
TRADE ACCOUNT CONSOLIDATION

Since 1981 the Alberta Agricultural Development Corporation has guaranteed through commercial lenders up to \$100,000 to Alberta farmers for almost any productive farming purpose except debt consolidation. In 1983-84, 6,061 loans totalling \$89.4 million by commercial lenders were guaranteed under this program.

Effective August 20, 1984 the assistance provided under this program will be enhanced to permit the consolidation of trade accounts payable that have been incurred in the ordinary course of business for the purchase of productive farm supplies. The term of the loan will be the lesser of 10 years or the productive life of the security offered.

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Refinancing of trade accounts under the AFDL program will provide a number of farmers with the means to reduce their interest expense and allow operating credit to revolve. In addition, the change will make it possible for trade creditors to collect accounts and thereby assist them in maintaining viable operations.

ALBERTA FARM DEVELOPMENT LOAN (AFDL)
FIXED RATE LOANS

Effective August 20, 1984 commercial lenders' farmer clients who obtain fixed rate financing will have the option of obtaining an Alberta Farm Development Loan. The AFDL generally requires less security and provides longer terms than commercial lending. AFDLs will also continue to be available on the normal interest basis which is up to one percent over the lender's prime rate for loans up to ten years, or up to one and one-half percent over the lender's prime rate for ten to fifteen year loans.

August 13, 1984

FOR IMMEDIATE RELEASE

PREMIER DISAPPOINTED WITH GRAIN FREIGHT RATE INCREASE

Premier Lougheed today expressed extreme disappointment with the federal government's decision to allow grain freight rate increases to proceed as planned.

The Premier stated, "There are a number of alternative means of freezing the rates that are available to the federal government despite restrictive wording of the legislation." He added that commitments were made to the railways prior to Royal assent being given to the Western Grain Transportation Act, and the same kind of commitment should be considered for western farmers.

The Premier further stated, "I cannot accept implications in Mr. Turner's telex of July 27, 1984 that our government approved the detail of Bill C-155. We did not accept the rate change formulae in the Bill — we took strong exception to the proposed 31.5 million tonne cap, and we expressed much dissatisfaction with the Bill's inadequate protection of farmers' ability to pay."

He concluded, "Our alternative, constructive proposals to address these issues are a matter of public record, filed with the Transport Committee of the House of Commons."

In July, Premier Lougheed had called upon Prime Minister Turner to rescind the proposed increase in grain freight rates for western farmers.

- 30 -

FOR IMMEDIATE RELEASE

FEEDING CEREAL FORAGE

The dry weather experienced in southern Alberta this year means that many producers will be using greenfeed, cereal silage and straw as the major roughage source for their cattle and sheep this winter.

Dale Engstrom, ruminant nutritionist with Alberta Agriculture, points out that cereal forages can differ in several ways from the grass and legume forage that many stockmen are accustomed to feeding. This is particularly true of cereal hay that has become over-ripe prior to harvest. The mature grain is easily shelled out and the leaves are lost during harvest and feeding operations, leaving little more than the stems for your stock.

"We analyse many so-called "greenfeed" samples that are not green, and are no better than straw in feed value," says Mr. Engstrom.

The following table shows some of the important nutrient differences that stockmen should keep in mind when formulating rations based on cereal rather than grass or legume roughage.

Average of Five Years' Results on Dry Matter Basis

	<u>Protein (%)</u>	<u>Digestible Energy (Mcal/lb)</u>	<u>Calcium (%)</u>	<u>Phosphorus (%)</u>
Alfalfa hay	17.9	1.2	1.87	0.23
Brome grass hay	10.8	1.15	0.61	0.17
Oat hay	9.4	1.15	0.36	0.21
Barley silage	10.9	1.20	0.52	0.27
Barley straw	4.7	.95	0.47	0.1

- (cont'd) -

Feeding Cereal Forage (cont'd)

For protein, cereal hay or silage is about equal to grass hay or silage, but considerably lower than alfalfa. Cereal hay or silage provides enough protein for wintering dry cows or ewes, but grower rations will likely need supplementation. The protein level in straw is low, and even mature stock need supplementation if it is a major part of the ration, says Mr. Engstrom.

The digestible energy value of cereal hay or silage is about equal to that of grasses and legumes. Straw has only 80 to 85 per cent of the energy value of a grass-legume hay. Research with straw-based rations for wintering cows in Alberta has shown that energy supplementation is generally needed.

There is a major difference in the calcium content of cereal forages compared with grasses and especially legumes. A legume or grass-legume hay will contain two or three times more calcium than cereal forage. Also, cereal hay or silage usually contains 20 to 30 per cent more phosphorus than grass or legume forage. Mr. Engstrom says that about 15 per cent of cereal hay or silage samples actually analysed have less calcium than phosphorus. The mature cereal hays, common in the dry areas this year, fall into this category.

"Because of these differences in mineral levels," says Mr. Engstrom, "stockmen should re-evaluate their winter mineral program." He notes that the one-to-one or "range mineral" that is commonly recommended for wintering cows on grass or legume roughage is not likely to be the best choice when cereal forage is being fed. A two-to-one mineral (example: 18 per cent calcium, 9 per cent phosphorus) is a better choice. In many cases only supplemental calcium is needed and feed grade limestone is sufficient and much cheaper. This is especially true if a significant amount of grain is being fed.

- (cont'd) -

Feeding Cereal Forage (cont'd)

Nitrates are higher in cereal forages than in grasses and legumes. "This year about 30 per cent of the samples from the drought area are over the toxic level," Mr. Engstrom reports. To prevent nitrate poisoning, producers should have a nitrate analysis done on all cereal hay or silage before buying or feeding.

Detailed feeding recommendations based on your feeds are part of the feed analysis service offered by Alberta Agriculture. Producers who anticipate a feed shortage should pick up a copy of the factsheet "Short of Feed This Winter? Here Are Some Ideas" (FS420/20-3) available from your district agriculturist or by writing to the Publications Office, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

FOR IMMEDIATE RELEASE

HAWAIIAN PORK MARKET SUCCESS

Canadian pork sales to Hawaii have increased 40-fold over the last two years. In the period from August 1983 to June 1984, pork sales amounted to close to two million dollars.

"That is a significant increase from a starting point of a \$50,000 feature in 1982," says Dave Rous, trade director with Alberta Agriculture. "The Hawaiian market over the past few years has turned out to be a very good outlet for Alberta pork."

Mr. Rous explains that prior to 1981, the only pork which reached Hawaii from Alberta was sold at irregular intervals through brokers.

With the inception of the Safeway Export Development Department (now called Canada West Trading) in May 1981, a whole new industry-wide cooperative effort took place. The export department, working closely with Alberta packers, the Alberta government, and with strong support from the Alberta Pork Producers' Marketing Board, formed a team which began a series of Canada Week promotions which featured Alberta pork in the Hawaiian Safeway stores.

The first such major feature was in June 1982, followed by repeats in January 1983 and again in 1984. In each case, the tonnage increased and Alberta pork became well accepted. Pork butts, loins and spareribs were the featured items and all have become regular and consistently available items in the market.

The Alberta Pork Producers' Marketing Board has had a strong role in this co-operative effort by supplying promotional and advertising assistance and staff to help run these promotions, Mr. Rous says. Alberta packers such as Gainers and Fletchers have also strongly supported pork promotions and sales to Hawaii.

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Hawaiian Pork Market Success (cont'd)

Canada West Trading has recently appointed a large, well respected local purveyor in Hawaii, and Alberta pork is moving regularly into Hawaiian supermarkets. It is now being sold in Star Markets, another major Hawaiian supermarket chain.

"The large increase in sales over a period of just two years has been the result of a total market development effort involving all facets of industry — producers, represented by the marketing board; packers; the exporter — Canada West Trading; and the Alberta government," says Mr. Rous.

The future looks promising as well, he says, with Canada Week features planned for October 1984 and January 1985. More importantly, Alberta pork is moving into the Hawaiian market on a regular basis providing Alberta producers and processors with another alternative market outlet for its product.

FOR IMMEDIATE RELEASE

SWARMING BEES CAUSING CONCERN FOR HOMEOWNERS

Bee swarms, typical at this time of the year, are being spotted frequently in both urban and rural areas. Homeowners become concerned when a swarm lands close to the house.

Mike Dolinski, supervisor of entomology with Alberta Agriculture, says generally there is no need to be concerned about the bees. His advice is to leave them for 24 hours and chances are they will leave to find a permanent location. If the bees do set up permanently, in a garage or a wall of a building for example, then Mr. Dolinski says there are ways to get rid of them.

Unless they're being a nuisance, Mr. Dolinski says the best method is to simply leave them until the winter when the hive will be frozen out. If more immediate action is required, he suggests using an insecticide.

"If the swarm is in an enclosed spot, such as in a building or wall, try placing a fly strip containing dichlorvos as close as possible to the bees. An example of such a strip would be Vapona. The gas given off by the strip is absorbed by the beeswax which will eventually kill the bees."

If the swarm is in a place where a strip can't be used, Mr. Dolinski says the entrances the bees use to get into the hive can be dusted with an insecticide. Typically the bees will use only one or two entrances. He suggests dusting the insecticide at night when the bees are inactive and the chances of getting stung are minimal. Insecticide sprays can also be used in the entrances but Mr. Dolinski says sprays are more likely to disturb the bees thereby increasing the homeowner's chance of getting stung.

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AGRICULTURE
Print Media Branch

- 2 -

Swarming Bees Causing Concern For Homeowners (cont'd)

While the sight of a swarm of bees may be intimidating to many people, Mr. Dolinski stresses that if the bees are left undisturbed they are usually not aggressive. Unless the swarm is adjacent to a doorway or some other often-used place, he suggests simply leaving the bees alone.

- 30 -

August 13, 1984

FOR IMMEDIATE RELEASE

SEASONAL ANESTRUS IN SWINE

The hot weather Alberta has had during late July and early August may increase the incidence of anestrus in swine.

Dr. George Klavano of Alberta Agriculture's animal health division explains that in swine, a seasonal pattern of infertility associated with the lack of estrus during July, August and September has been identified in Canada and in other countries.

"Sows that wean litters in July, August and September often have delayed intervals from weaning to the next estrus, and even gilts due to be bred may demonstrate a period of anestrus at this time," Dr. Klavano says.

Controlled studies have revealed an increase in the occurrence of anestrus and silent estrus, and a decrease in conception rates in gilts when environmental temperatures are elevated. Embryonic survival may also be jeopardized when temperatures above 36° C occur during the first 14 days after service.

The effects on the boar during this period include a decrease in the number of sperm per ejaculate, as well as decreased motility and fertility. Boars housed outside during the summer at temperatures of 30°C to 40 ° C have decreased fertility and litter size.

Dr. Klavano says the incidence of anestrus in some herds may approach 50 per cent. Conception rates of 25 to 70 per cent are common for matings that occur in the July to October period, compared with conception rates of 70 to 90 per cent in sows mated in the November to June period. Therefore, there is an increase in the number of repeat breedings that occur in swine during late summer and early fall.

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Alberta

AGRICULTURE

Print Media Branch

Seasonal Anestrus In Swine (cont'd)

Some producers have reported an increase in the number of sows and gilts exhibiting estrous cycles of 24 days' duration or longer. This feature of seasonal infertility may be confused with other conditions that may also produce prolonged estrous cycles. Because of seasonal anestrus, a corresponding decrease in farrowing rate is observed in the period of November to early February.

The best way to prevent and treat seasonal anestrus in swine is to reduce heat stress. "Decrease the temperature in the housing unit or provide adequate shade for animals kept outside at this time," Dr. Klavano advises.

Such precautions are especially necessary for producers who have their animals pasture bred at this time of year. Hormones may also be used for treatment and further information on the use of these products can be obtained by consultation with a veterinary practitioner.

FOR IMMEDIATE RELEASE

REPLACING FARM MACHINERY

Because farm cashflow has been tight these last few years, farmers have delayed replacing machinery. Machinery purchases often involve heavy outlays of capital funds. These purchases use up cash and credit reserves and commit farmers to cash outflows that may reduce funds needed to pay critical operating expenses.

Once a machine has been purchased, it is difficult to reverse this ownership decision without loss. It is therefore important, says Keith Brown of Alberta Agriculture's farm business management branch, to ensure that machinery purchase and replacement decisions are properly managed in order to protect farm profitability in the longer term.

"Farmers today cannot afford to make mistakes with their machinery decisions," says Mr. Brown.

Some of the calculations necessary to evaluate machinery replacement decisions can be quite complex. Keith Brown and Gerd Andres of the farm business management branch of Alberta Agriculture in Olds have developed strategies and worksheets to help evaluate these decisions. These strategies and worksheets were printed in the July issue of Country Guide as Agdex 825-18 "Replacing Farm Machinery".

The key to profitable machinery replacement decisions is to minimize fixed costs per acre without losing out to higher risk of repair, timeliness and dependability costs. The tax implications (investment tax credit and capital cost allowance) of machinery purchases are often a significant but complex consideration. Worksheets included in the factsheet are designed to help evaluate such tax impacts.

These worksheets include an example that illustrates how to compare keeping an old machine for another year with buying a replacement machine today.

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Replacing Farm Machinery (cont'd)

Copies of the factsheet are available from Alberta Agriculture district offices, the Farm Business Management Branch, Box 2000, Olds, Alberta, T0M 1P0 or by writing to the Publications Office, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

FOR IMMEDIATE RELEASE

AGRICULTURAL FINANCIAL MANAGEMENT PROGRAM
OFFERED IN LETHBRIDGE AND FAIRVIEW

Fairview College and Lethbridge Community College, in cooperation with Alberta Agriculture, are offering a winter course in Agricultural Financial Management to farm families in the Peace River and Lethbridge areas of the province.

The course runs from November through March and combines monthly farm visits by the instructor with two classroom sessions a month.

The program is designed to develop a personalized record keeping system for each farm family. It also helps them to prepare and analyze their own financial statements for management purposes. Other subjects include budget preparation, tax planning strategies, estate planning, credit management and use of computers to assist with these skills.

George Monner, Alberta Agriculture's regional economist in Fairview, says previous farm family participants have been enthusiastic about the course. On evaluations, they made comments like: "Home visits most beneficial," "Helped us realize our costs, helps in budgeting and tax planning," "Farm visits enabled me to relate course to personal situation," "I really enjoyed this class and although this is only the first year, it has been all I hoped it would be. I am looking forward to the next two years."

For further information about the course write to:

Agricultural Financial Management
Division of Continuing Education
Lethbridge Community College
3000 College Drive South
Lethbridge, Alberta, T1K 1L6

or

Agricultural Financial Management
The Registrar
Fairview College
Box 3000
Fairview, Alberta, T0H 1L0.

August 20, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Livestock Drought Assistance Program	1
How Much Should You Pay For Hay?	3
Hauling Grain Regulation Changes Announced	6
Pasture Management Measures Prevent Atypical Interstitial Pneumonia	7
4-H Announces CNE Scholarship Winner	9
Cost Comparison Of Methods Of Seeding, Fertilizing And Spraying	10
Avoid Pseudomonas Mastitis	13
Fall Care Of Woody Plants	14
Eradicating Fairy Rings	15

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Alberta
AGRICULTURE
Print Media Branch

August 20, 1984

1

FOR IMMEDIATE RELEASE

LIVESTOCK DROUGHT ASSISTANCE PROGRAM

Livestock producers eligible under the recently announced livestock drought assistance program will be able to apply for assistance through Alberta Agriculture district offices. Application forms should be available from district offices in mid-September.

The livestock drought assistance program was announced jointly by Premier Peter Lougheed and Agriculture Minister LeRoy Fjordbotten August 10. The program is designed to assist livestock producers who face the worst drought in half a century.

Livestock producers will receive assistance in the form of direct grants which will be made on 85 per cent of bred females at two levels of payments. A payment of \$30.00 per bred cow or heifer, ewe or goat doe equivalent will be made to all producers in a designated area. A supplementary \$18.00 per cow, or equivalent, will also be paid to those experiencing extreme drought conditions.

The northern boundary of the drought area will soon be finalized and will be determined by the condition of pasture, crop yields, and distance from available supplies of hay and other feedstuffs. All livestock producers south of this line will receive the \$30.00 per cow, or equivalent, soon after application. It will take longer to designate the severe drought regions where the supplement will be applicable.

There are an estimated 757,000 beef and dairy cows and heifers, and 55,000 ewes in the drought area where grants will apply.

"Payments will be based on August first inventories and the producer affidavit will include a commitment to maintain a minimum of 75 per cent of the herds until April 1, 1985," said Mr. Fjordbotten. Producers who plan to keep less than 75 per cent of their August first inventory will receive a lower payment.

- (cont'd) -

Livestock Drought Assistance Program (cont'd)

Herd inspections will be conducted to verify information given on applications. The tentative deadline for farmers to apply for assistance is November 30.

The Premier and the Minister highlighted three other significant and innovative efforts which are being made to assist affected livestock producers.

Alberta Terminals Limited (ATL) is making arrangements to facilitate moving feed to southern Alberta. Negotiations are underway with CN Rail and have resulted in a commitment to reduce domestic rail rates. ATL is itself reserving terminal storage space for barley in Calgary and Lethbridge. Other possibilities involving the movement of alfalfa pellets and hay are also being examined.

As well, Premier Lougheed and Mr. Fjordbotten said substantial additional funds have been allocated for equipment and manpower to the Emergency Water Supply Livestock Program. The existing program, with 33 miles of pipe and 24 pumps, has been operating at full capacity. With the heavy pumping months of September and October to come, the provincial government has authorized the immediate procurement of sufficient additional equipment to meet this demand for livestock water pumping services in southern Alberta. Full consideration will be given to those producers with the extraordinary distance and lift situations.

Don Sparrow, Associate Minister of Public Lands and Wildlife, has approved the sub-letting of crown leases throughout the province. This policy will remain in place until the fall of 1985 and will assist producers in the drought area by allowing the movement of livestock to pastures that are underutilized and where moisture and grazing are plentiful.

FOR IMMEDIATE RELEASE

HOW MUCH SHOULD YOU PAY FOR HAY?

Hay, specifically alfalfa, is often the first feed that comes to mind when we think of feeding cattle and sheep. But ruminants, such as cattle and sheep, can utilize a variety of feed sources to meet their need for nutrients, says Dale Engstrom, ruminant nutritionist with Alberta Agriculture.

In addition to hay, silage and feed grains, such feeds as screenings, straw, corn stover and even wood fibre can provide nutrients that can be converted within the animal to meat and milk, Mr. Engstrom says. When conventional feeds are in short supply, the adaptability of the ruminant animal can be used to minimize the cost of wintering your herd.

Alfalfa hay is normally priced in relationship to its value in dairy rations. Lactating dairy cows utilize the high energy and protein content of alfalfa hay which would otherwise have to be provided by more expensive energy and protein supplements. On the other hand, Mr. Engstrom says, beef cows can survive and be productive on lower levels of energy and protein.

"Feeding good quality alfalfa hay as the major source of feed to wintering beef cows is wasteful and expensive," the nutritionist stresses.

Since straw is often available and inexpensive, the value of hay or other feeds should relate to the cost of a straw-based ration. The following rations all meet the minimum requirements of a 500 kg (1100 lb) beef cow in mid-pregnancy.

No.1

	<u>kg(lb)/head/day</u>
Barley straw	7.5 (16.5)
Barley grain	1.5 (3.3)
32% beef supplement	0.5 (1.1)

- (cont'd) -

Alberta

AGRICULTURE

Print Media Branch

- 2 -

How Much Should You Pay For Hay? (cont'd)No.2

	<u>kg (lb)/head/day</u>	
Alfalfa hay	8.2	(18)
18:18 mineral	9 g	(0.32 oz)

No.3

Barley greenfeed	8.5	(18.7)
------------------	-----	--------

No.4

Alfalfa hay	3.0	(6.6)
Barley straw	7.0	(15.4)
18:18 mineral	23 g	(0.81 oz)

If barley is worth \$140 per tonne (\$3.05 per bu), straw \$38.50 per tonne (\$35 per ton) and 32% supplement \$225 per tonne (\$204.17 per ton), then ration No.1 will cost \$.61 per head per day. If ration No.2 is to be competitive with this cost, then alfalfa hay must not cost more than \$71.76 per tonne (\$65.24 per ton). Barley greenfeed cannot exceed this price either if ration No.3 is to be price competitive.

"This may be surprising to some because alfalfa contains about twice as much protein as greenfeed," says Mr. Engstrom. "But this extra protein is not worth much to the beef cow because it is in excess of her needs."

However, if alfalfa hay is fed with straw (ration No.4) then all of its protein content is useful and of value. Alfalfa hay can be worth up to \$110.67 per tonne (\$100.61 per ton) and ration No.4 will only cost \$.61 per head per day.

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How Much Should You Pay For Hay? (cont'd)

Mr. Engstrom says the same approach can be used to place a value on hay for calf rations. Because growing calves have a higher requirement for protein and energy than do mature cows, feeds such as alfalfa hay will be worth more in calf rations than in cow rations. Examples of rations and hints on managing your feed program are contained in an Alberta Agriculture factsheet "Short of Feed This Winter: Here Are Some Ideas" (Agdex FS 420/203 available from your district agriculturist or by writing to the Publications Office, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

FOR IMMEDIATE RELEASE

HAULING GRAIN REGULATION CHANGES ANNOUNCED

Recently announced changes to regulations concerning hauling grain will allow farmers to haul increased loads from their fields to farm storage from August 15 to the end of harvest. The changes, announced by Alberta Transportation Minister Marvin Moore, became effective August 15, 1983.

Under the revised regulations, a tolerance of 1000 kilograms (2200 lb) will be permitted over the legal axle load on each axle of the hauling vehicle. In addition, tolerance on the allowable gross vehicle weight is increased from the present five per cent to 15 per cent, to a maximum of 2000 kilograms (4400 lb).

The changes apply to vehicles travelling on gravelled primary highways and on secondary and local roads within Improvement Districts. All roads under municipal, county or special area control will remain the responsibility of the local road authority.

In making the announcement, Mr. Moore said he will be encouraging the municipal districts and counties to adopt similar weight allowances on gravelled roads under their jurisdiction.

Mr. Moore stated, "It is necessary to maintain the existing weight restrictions on paved roads both under provincial and municipal control because of the severe damage that often occurs to paved roads when grain trucks are overloaded."

This increase in axle loading and gross vehicle weight should help to resolve some of the problems that farmers face in getting the crop to the bin. The changes will begin each year on August 15 and will run until the completion of harvest.

- 30 -



FOR IMMEDIATE RELEASE

PASTURE MANAGEMENT MEASURES PREVENT
ATYPICAL INTERSTITIAL PNEUMONIA

As early as the first week in August, practising veterinarians were reporting outbreaks of atypical interstitial pneumonia (AIP) or acute bovine emphysema in cattle turned onto oats pasture. This disease typically occurs in autumn when adult cattle are moved from a poor quality pasture onto a lush meadow, says Dr. Neil Palechek, extension veterinarian with Alberta Agriculture. He says it appears that high levels of ingested plant amino acids, metabolized in the rumen, form a toxic agent that inflicts severe lung damage in adult cattle.

To illustrate the signs of the disease, Dr. Palechek describes a typical case where cows have been grazing on fresh meadow pasture for four or five days. If the cows have not been observed twice a day, a dead cow may be the first indication of a problem. Careful observation of the herd may reveal four to 20 animals breathing with some difficulty. Moderate exercise, which can occur in the process of driving sick individuals to the corral, can precipitate severe respiratory distress. These animals will extend their necks, breathe with their mouths open, and have a rather typical grunt on expiration.

Cattle afflicted with this disease should be moved very slowly and cautiously, Dr. Palechek warns. Exercise or excitement increases the oxygen demand of cattle that are really hurting for lack of air.

AIP causes permanent lung damage. Cattle that repeat the established grazing pattern annually probably experience mild lung damage without the owner being aware of the illness. The following season, when exposed to a similar pasture, cows that have experienced this disease previously are more susceptible and exhibit more serious signs of the disease. Efforts at improved pasture management appear to accentuate this disease.

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Pasture Management Measures Prevent Atypical Interstitial Pneumonia (cont'd)

"As we improve feed availability by pasture seeding, irrigation and fencing, it appears that we contribute to those factors that trigger the acute disease and accentuate losses," says the veterinarian.

Dr. Palechek suggests precautions that farmers can take. Use supplemental feeding to minimize the abrupt nutritional shift when moving cows to meadow pastures with abundant feed. Cattle should be adapted gradually to the new pasture; graze them on the suspected pasture for one hour the first day and supplement their diet with good quality hay. Increase the time on the pasture by one hour each day for seven days, before leaving the cows in the meadow. Continue to offer good quality hay during this adjustment period. It has been noted that the incidence of this disease declines rapidly two to four weeks following the first killing frost.

If an outbreak of AIP does occur, Dr. Palechek says to carefully remove all the cattle from the field and place the visibly affected ones in a dry lot. Avoid exciting the cattle. Excited cattle may die suddenly and additional cattle may begin to show signs.

When affected cattle can be treated without excessive excitement, several drugs including corticosteroids, antihistamines, and tranquilizers have been used with varying degrees of success. Obtain veterinary assistance in confirming the suspected disease and avoid further losses.

August 20, 1984

FOR IMMEDIATE RELEASE

4-H ANNOUNCES CNE SCHOLARSHIP WINNER

Leona Quantz of Innisfail has won the 1984 Canadian National Exhibition scholarship for Alberta. Leona is one of 10 delegates from across Canada who will be presented the CNE award at a ceremony at the CNE in Toronto, later in August.

The \$1,000 CNE scholarship is awarded annually to one student from each province who has completed at least one year in a degree program in home economics or agriculture. Applicants are considered on the basis of their 4-H involvement, community participation, leadership skills and marks.

Leona will be entering her third year of clothing and textiles, in the Faculty of Home Economics at the University of Alberta this fall. She was a member of the Sateens 4-H Sewing Club for three years and the Thrifty Sew 'N Sews Club for four years.

The CNE scholarship is administered by the Canadian 4-H Council and sponsored by the Ontario Ministry of Agriculture and Food, and the Rural Organizations and Services Branch. 4-H scholarship winners are chosen by a selection committee.

- 30 -

FOR IMMEDIATE RELEASE

COST COMPARISON OF METHODS OF SEEDING,
FERTILIZING AND SPRAYING

A comparison of alternative methods of seeding, fertilizing and spraying has recently been completed by Alberta Agriculture.

The study, conducted by Len Fullen, systems economist with the department, compared both the economic and operational performance of conventional ground implements, air seeders and aircraft. Sixty-five farmers from across Alberta supplied data for 172 fields that were seeded, fertilized or sprayed by one of these three methods.

Mr. Fullen says of the 38 fields of stubbled-in wheat which were analysed, 18 were seeded with conventional drills, 17 with airseeders and three with airplanes. The following table shows how work rates and costs compared among the three systems. Alberta Agriculture's 1982 Farm Machinery Costs publication, Agdex 835-12, was used in determining fixed and variable costs for each system.

	<u>Conventional</u>	<u>Airseeders</u>	<u>Airplanes</u>
Number of fields of data	18	17	3
Average field size (acres)	121	170	280
Average times over for tillage seeding, fert. and spraying			
Farmer	6.4	3.8	5.5
Custom operator	.3	.4	2.0
Average acres tilled, seeded, fertilized and sprayed per hour during season	2.32	6.41	4.39

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- 2 -

Cost Comparison Of Methods Of Seeding, Fertilizing And Spraying (cont'd)

Variable costs:			
Tractor	\$ 8.43	\$3.86	\$ 6.40
Machinery	2.60	2.06	2.24
Labor (@ \$6.50 /hr)	3.61	1.57	1.80
Custom	1.38	1.11	7.15
	<hr/>	<hr/>	<hr/>
Total variable costs (excluding material costs)	\$16.02	\$8.60	\$17.59
Material costs — fertilizer	22.25	20.50	22.25
— seed	9.02	7.52	7.95
— chemicals	7.99	7.86	3.55
	<hr/>	<hr/>	<hr/>
Total material costs	\$39.26	\$35.88	\$33.75
Fixed costs:			
Tractor	4.64	2.10	3.23
Machinery	5.18	4.75	3.68
	<hr/>	<hr/>	<hr/>
Total fixed costs	9.82	6.85	6.91
Total variable and fixed costs	<u>\$25.84</u>	<u>\$15.45</u>	<u>\$24.50</u>

Mr. Fullen reports similar results were obtained in a comparison of stubbled-in barley crops. However, farmers who used airseeders to stubble-in canola had an average of 7.6 times over their field for tillage, seeding, fertilizing and spraying compared to 7.2 and 6.0 times over when conventional implements and aircraft were used for the operations.

Variable costs totalled \$18.10, \$14.95 and \$17.48 per acre for airseeder, conventional and aircraft systems, while fixed costs were \$13.85, \$10.06 and \$7.52 per acre giving total costs of \$31.95, \$25.01 and \$25.00 per acre for each of the three systems (exclusive of material costs).

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Cost Comparison Of Methods Of Seeding, Fertilizing And Spraying (cont'd)

Although crop yield was reported for each field, no meaningful relationship could be determined since the data reported were from across the province with too much variation in rainfall and other weather conditions.

The summary publication, entitled A Cost Comparison of Conventional Implements, Airseeders and Airplanes For Seeding, Spraying and Fertilizing, Agdex 821-27, contains many comments from farmers experienced with these systems. It is available from Alberta Agriculture's district offices or by writing to the Publications Office, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

August 20, 1984

FOR IMMEDIATE RELEASE

AVOID PSEUDOMONAS MASTITIS

The current emphasis on the production of high-quality milk and the role of somatic cell counts as an indicator of milk quality have reinforced efforts for the control of mastitis in dairy cows.

Dry-cow therapy is one effective method for reducing the occurrence of chronic udder infections, but it must be done properly to avoid the introduction of bacteria that can cause mastitis at calving, says Dr. Dennis Bolingbroke of Alberta Agriculture's regional veterinary laboratory in Lethbridge. At calving, the natural defences of the udder are lowered and dairy cows may be overwhelmed and die from acute mastitis.

Severe herd problems of mastitis caused by *Pseudomonas* are known to have resulted from the accidental contamination of dry-cow antibiotics. Most cows treated with the contaminated product became severely ill at freshening and many died despite treatment.

In the past year, Dr. Bolingbroke reports, two southern Alberta dairy producers lost several cows from acute mastitis caused by the bacterium, *Pseudomonas aeruginosa*. *Pseudomonas* organisms, which are normally very resistant to many antibiotics, are not common invaders of the udder but are found in the wet areas of dairy barns. Thus, their presence in the udders of severely affected cows usually indicates that they have been introduced by mechanical means, as for example, during dry-cow treatment.

Dr. Bolingbroke emphasizes that proper techniques must be used.

"In the treatment of mastitis from any cause, proper techniques, including the cleaning and disinfecting of teats and the use of sterile infusions into the udder, can be demonstrated by a veterinarian. The use of single-dose treatment packaging will prevent contamination of the antibiotic on the farm and will avoid potentially disastrous outbreaks of mastitis caused by *Pseudomonas* organisms."

- 30 -

FOR IMMEDIATE RELEASE

FALL CARE OF WOODY PLANTS

Proper fall watering of woody plants in Alberta is necessary. George Grainger, superintendent of the Alberta Tree Nursery and Horticultural Centre, has some suggestions to ensure trees and shrubs survive the coming winter.

Begin preparation for winter in August and September by withholding water and fertilizers. This allows the plant to shut down its processes in time to mature the new growth.

Watering should be done, however, says Mr. Grainger, from October 15 to freeze up to provide moisture for the following spring. He explains that with evergreens especially, drying generally occurs in very early spring when the ground is still frozen. When the above-ground tissue heats up in late winter and early spring and the plant does not have sufficient water reserve in the stems and branches, the tissue will dry out.

"The water the plant needs is taken up the previous year, so what you do from June through August has more effect on the plant than what happens in the winter," he says.

Fertilizers may also be applied in the October 15 to freeze-up period. Mr. Grainger explains that fertilizers applied one year show the best results the following year.

- 30 -

FOR IMMEDIATE RELEASE

ERADICATING FAIRY RINGS

Fairy rings in lawns are difficult to control. Perforating the turf and applying ample water and adequate nitrogen, or applying a fungicide to the turf are common methods used to control the problem.

These methods, however, only suppress ring symptoms says Belinda Choban, sod specialist with Alberta Agriculture. The methods will not eradicate the fungus.

Ms. Choban says that if only a few rings are present, it might be practical to achieve complete eradication through soil fumigation. For domestic use, a fungicide solution sufficient for four square metres of soil consists of 1.7 litres of 40 per cent formaldehyde solution (formalin), 250 mL of wetting agent (turf wetting agent or dish washing detergent) and 25 litres of water.

First strip the turf at least 45 cm from the outer and inner edges of the ring. Remove the sod and discard it, taking care not to spill any on the uninfected lawn. Next, cultivate the soil of the ring to a depth of at least 18 cm. Water in the solution with a watering can, making certain that none gets on the remaining turf or damage will occur. Then cover the treated soil with a plastic sheet to seal in the vapor for seven to 10 days. After that time, remove plastic and cultivate the soil. Let the soil air for 10 to 14 days to ventilate the formaldehyde gas. Finally, add more soil if needed, pack and re-seed or sod. Ms. Choban cautions that all tools used in the operation should be cleaned and soaked in the solution for at least two hours.

Fumigants like methylbromide, metham or chloropicrin should be used only by trained applicators. No fumigation should be done within one metre of the drip line of trees and shrubs.

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- 2 -

Eradicating Fairy Rings (cont'd)

In areas where many rings are present, a more practical procedure may be a biological control method. Kill and remove the turf, then rototill the soil several times to mix the fungi and destroy the rings. This biological control method is based on the fact that fairy ring fungi are antagonistic to each other.

- 30 -

August 27, 1984

FOR IMMEDIATE RELEASE

THIS WEEK

Feed And Forage Exchange Possibilities For Alberta Farmers.	1
Get Drought-Stressed Cereal Forage Analysed.	2
Wild Rice Harvesting Day	4
Changes To The Preconditioning Program.	6
Wean Calves Early	8
Beetles From Europe For Leafy Spurge Control	11
1984 Custom Rates For Fertilizer Applications	13
Outdoor Farmers' Markets	15
Financial Assistance Available To Alberta Farmers.	16
Regional 4-H Specialist Appointed	17

Phone: (403) 427-2121

Alberta
AGRICULTURE
Print Media Branch

August 27, 1984

FOR IMMEDIATE RELEASE

FEED AND FORAGE EXCHANGE POSSIBILITIES
FOR ALBERTA FARMERS

Alberta farmers wishing to sell or wanting to buy hay and straw can use two exchange mechanisms available through Alberta Agriculture.

Alberta Agriculture's district agriculturists in the four northern regions of the province are collecting the names of farmers with forage to sell. Lists of hay for sale are being circulated to district agriculturists in the drought-stricken areas. Farmers wanting to buy hay may contact their district agriculturist for assistance in locating available supplies.

Farmers may also make use of the Alberta Feed and Forage Exchange, a program which Alberta Agriculture has operated for several years.

Glen Binnington, executive assistant for the Alberta Grain Commission which is responsible for the exchange, reports that the exchange currently has several listings of farmers around the Edmonton area with hay to sell. Alfalfa and mixtures of hay are available in both round and square bales. Mr. Binnington encourages farmers to make use of the exchange.

The Feed and Forage Exchange has eight offices in Alberta. Farmers wanting to buy or sell feed are asked to contact one of the eight exchange offices.

The exchange records such information as type of hay, quantity, whether it is in round or square bales, and the area where it is available or needed. The needs of the buyer and seller are then matched. The price is usually negotiated between the individuals involved.

Feed and Forage Exchange offices are located at Airdrie — 948-5727; Edmonton — 427-7331; Fairview — 835-2228; Grande Prairie — 532-1426; Lethbridge — 328-7721; Medicine Hat — 527-7555; Red Deer — 340-5303; and Vermilion — 853-5313.

- 30 -

August 27, 1984

FOR IMMEDIATE RELEASE

GET DROUGHT-STRESSED CEREAL FORAGE ANALYSED

One quarter of cereal forage samples from southern Alberta that have been tested for nitrates by Alberta Agriculture's soil and feed testing laboratory have had levels of nitrates that could seriously endanger the health of cattle, sheep and goats.

Rick Corbett, dairy nutritionist with Alberta Agriculture, strongly urges farmers using drought-stressed cereal crops as forage to have feed analysed before feeding to livestock.

Mr. Corbett explains that nitrates are the form in which plants take up nitrogen from the soil. Under normal circumstances the nitrates are converted to protein by the plants. Under drought stress, however, the plants may not be able to convert nitrates to protein as rapidly as normal. As a result the nitrates accumulate in the plant. Nitrates are toxic to cattle, sheep and other ruminant animals. At low levels, reduction in weight gain and milk production can occur and at higher levels, abortions and death are possible. Death often occurs very rapidly following feeding.

The soil and feed testing laboratory has tested more than 130 cereal forage samples from southern Alberta for nitrates. Approximately 25 per cent of these contained more than one per cent nitrate, a level that may seriously endanger the health of cattle, sheep and goats to the degree that some may die. Another 18 per cent contained enough nitrates that losses in animal productivity could be expected. Only 20 per cent of the samples were free of nitrates, Mr. Corbett reports.

Feed that contains nitrates can still be used, the nutritionist says. "High nitrate content feeds can be diluted with nitrate free or low nitrate content feeds to reduce the total level of nitrates in the ration."

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Get Drought-Stressed Cereal Forage Analysed (cont'd)

If there is a possibility of nitrate accumulation, Mr. Corbett advises having feed analysed before using it. Various labs report nitrate levels in different ways. Alberta Agriculture's district agriculturists or regional livestock specialists can help with the interpretation of a nitrate report or producers are invited to call the soil and feed testing laboratory at 436-9150.

- 30 -

FOR IMMEDIATE RELEASE

WILD RICE HARVESTING DAY

How to produce and use wild rice will be demonstrated at the wild rice harvesting day being held September 7, 1984, at Parkview, near Athabasca. The demonstration is being sponsored by Alberta Agriculture and the Northern Alberta Wild Rice Growers' Association.

Experienced growers will be available throughout the day to answer questions on producing wild rice. Wild rice production will also be illustrated with a slide presentation at the Parkview Community Hall. District home economists from Athabasca and Lac La Biche will have a display on cooking wild rice and recipes for various wild rice dishes.

The demonstration will begin at 10:00 a.m. at the Parkview Community Hall. At Jackfish Lake, north of Parkview, wild rice will be harvested. Visitors will have an opportunity to ride in an air boat which has a collecting tray for gathering ripe grain. Demonstrations of harvesting wild rice will run throughout the day until 4:00 p.m. Lunch will be available for a nominal charge at the Parkview Community Hall.

Wild rice is the only cereal native to Canada. In early fall, farmers seed wild rice into the muddy bottoms of shallow lakes and streams. Wild rice will grow in water from less than six inches to over four feet in depth. The seeds remain dormant through fall and winter and germinate the next May. The root sprout attaches itself loosely to the soft soil and long ribbon-like floating leaves develop by early June.

Once the stem and leaves have grown a foot or two above the water, spikelets which have male and female flowers develop. The flowers at the top of spikelets mature first.

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Wild Rice Harvesting Day (cont'd)

After pollination, it takes two or three weeks for the seed to fully develop. Since seeds slowly mature from the top of the head down, not all the rice ripens at the same time. This means wild rice must be harvested several times at two-or three-day intervals.

Approximately 35 lakes in Alberta were test seeded in the fall of 1983. These lakes are being sampled for oxygen, turbidity and soil to determine how these factors influence the establishment of wild rice in Alberta. Results will likely be available later this fall.

Potential growers of wild rice, extension staff and regional crop production specialists are invited to attend the harvesting day demonstration.

Parkview is three miles east of Athabasca on highway 55 and 4½ miles north.

Individuals who plan to attend are asked to leave their names with Alberta Agriculture's district office in Lac La Biche, telephone: 623-5218.

August 27, 1984

FOR IMMEDIATE RELEASE

CHANGES TO THE PRECONDITIONING PROGRAM

Paid veterinary visits for certification of calves under the Alberta Certified Preconditioned Feeder (ACPF) program will be reinstated as the result of recently announced changes to the program.

Other changes announced include the removal of the preimmunized option and a decrease in the required length of ownership to 45 days from 60 days.

The ACPF program is designed to prepare calves to withstand the stress of transportation and other factors involved in the marketing process. The program, operated by Alberta Agriculture, ensures that calves are castrated, dehorned, vaccinated, weaned and treated for warbles prior to being shipped to market. Calves that receive this treatment are eartagged and certified.

Prior to the recent changes, there were two options available under the program: the preimmunization option for which white eartags were issued and the preconditioned option, for which green eartags were issued. The preconditioned program was a more complete conditioning option than the preimmunized program where calves were not weaned.

Dr. Terry Church, head of Alberta Agriculture's health management branch, says the preimmunization option was dropped because there were declining numbers of producers participating and because confusion was created over the two colors of eartags. In addition, he says, four years of observations have shown that the improvements in health were much greater under the preconditioned option and most feedlots are well equipped to vaccinate calves.

"The greatest health improvements appear to occur when the calves have been weaned prior to shipment to the feedlot," Dr. Church reports.

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Changes To The Preconditioning Program (cont'd)

The paid veterinary visits for eartagging and certification will be reinstated. This move was made, says Dr. Church, in order to help increase the number of preconditioned calves offered for sale and to assist the expansion of the program into other areas. Each cow-calf producer will be provided with a maximum of three veterinary visits over three years for certification of preconditioned calves. Veterinarians will be paid for these visits by Alberta Agriculture.

As the result of another change made to the program, participants in the program will have to own the calves for not less than 45 days prior to sale. Previously this figure was 60 days.

As in previous years, eartags and certificates for preconditioning will be available through Alberta Agriculture district offices and from veterinary offices throughout Alberta. Further information about the program is available through these outlets as well.

August 27, 1984

FOR IMMEDIATE RELEASE

WEAN CALVES EARLY

Calf producers faced with a shortage of pasture because of the dry conditions should consider weaning their calves earlier and selling them later at Alberta Certified Pre-conditioned Feeder (ACPF) calf sales.

Dwight Karren, Alberta Agriculture's regional livestock specialist at Lethbridge, recommends such action because weaning calves earlier will reduce the grazing pressure on the range, remove the nutritional stress on the cow and, if the calves are preconditioned, could increase the weight and the selling price of the calves.

An unweaned calf on pasture represents a stocking rate of 0.25 to 0.5 animal units depending upon the size and age of the calf and the amount of milk the cow supplies to the calf. Weaning the calves and removing them from the pasture increases the amount of pasture available to maintain the cow herd, says Mr. Karren.

Cows with sucking calves have a higher nutritional requirement than dry cows. When sufficient grass is not available to maintain this requirement, cows draw heavily on body reserves. Cows that are thin going into winter require more feed over the winter just to maintain their weight. If sufficient feed to gain weight isn't available, cows remain thin throughout the winter. At breeding, thin cows are harder to breed which results in more open cows and later calves the following year.

Cows in poor condition in the fall can be brought to good breeding condition by spring if sufficient good quality feed is fed. Over the winter, it will take in excess of 25 per cent more feed to accomplish this. The actual amount will depend upon the condition of the cows and the severity of the winter. Even if feed is available, the cost of the extra feed may be prohibitive.

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Wean Calves Early (cont'd)

One of the drawbacks of early-weaning calves is marketing the calves. Usually the higher calf prices occur in the later fall when more eastern buyers are on the market. Pre-conditioning the calves, says Mr. Karren, will give more marketing flexibility to early-weaned calves. The timing of calf marketing can then be judged on the basis of calf prices and not on the condition of the pasture and the cows.

Mr. Karren says that it is doubtful that even in good years fall gains of sucking calves are optimised. Because grass quality and quantity are reduced and cows' milk declines, it is difficult to maintain good calf gains.

Mr. Karren reports that fall calves sucking British-type cows on native pasture in southern Alberta have been recorded gaining about one-half pound per day. Earlier in the summer when pasture quality was better and cows' milk production was greater, these same calves were gaining two and one-half pounds per day. Weaned calves fed good quality roughage and about five pounds of grain per day can gain one and one-half to two pounds per day over a 30-day period. It is, therefore, quite possible for weaned calves to gain a pound a day more than unweaned calves during this period of time.

Preconditioning calves can increase net returns by increasing the weight of the calves and the calf price. For example, Mr. Karren says a 400-lb preconditioned calf that gains a net of one and one-half pounds per day over a 30-day preconditioned period increases returns by \$36.00 per calf on a 80-cent calf market. If that calf is then sold at a five-cent per pound premium because it is preconditioned, returns are increased a further \$23.00 for a total increased return of \$59.00 per calf. A survey among producers of preconditioned calves in 1983 showed the cost of preconditioning to be \$33.65 per calf, which included \$30.03 for feed, \$1.62 for the veterinarian and \$2.00 per head for the vaccines.

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Wean Calves Early (cont'd)

"If we assume costs are as in this example," says Mr. Karren, "then the net return to preconditioning would be \$25.35 per calf." He goes on to point out that this example doesn't include any extra return from the cow herd because of reduced grazing costs, reduced winter feed costs, nor does it include any increased returns from a higher weaning percentage or heavier weaning weights.

Calf producers wishing to take advantage of the ACPF program for their early weaned calves should make the necessary arrangements through their local veterinarian and district agriculturist.

FOR IMMEDIATE RELEASE

BEETLES FROM EUROPE FOR LEAFY SPURGE CONTROL

Two kinds of beetle from Europe which were released in Alberta last summer for biological control of leafy spurge are alive and well in the Cardston area. This was reported by Dr. Alec McClay, weed biocontrol specialist at the Alberta Environmental Centre in Vegreville. The beetles were released as part of a project on biological control of leafy spurge, an aggressive, deep-rooted perennial weed of European origin.

The adult beetles feed on the leaves while the immature beetles, or larvae, attack the roots. Extensive tests have shown that they feed only on spurge and will not attack any crop plants. At present leafy spurge can only be controlled by the use of persistent herbicides such as picloram, which are environmentally undesirable in sensitive areas such as among trees or along watercourses.

The beetles, which were originally collected in Austria, Hungary, Germany and Switzerland, were released at Cardston in July last year. The first indication that they had survived and bred came when adults emerged from soil samples collected in May 1984. On a later visit in July, Dr. McClay found adults of both species feeding on leafy spurge plants in the field.

Dr. McClay emphasized that the populations of beetles present in the field are still extremely small, and that it may take several years for them to build up to a level at which they will begin to have an impact on the leafy spurge.

"However, we now know that at least they will breed here and can survive the Alberta winter, and this brings us one step closer to the possibility of successful biological control of leafy spurge," the scientist said.

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Beetles From Europe For Leafy Spurge Control (cont'd)

Several other European insects are being studied as possible biological control agents for leafy spurge. These insects are thought to be responsible for the fact that leafy spurge is a relatively rare plant in Europe, and not a serious weed as it is in Canada. This research is being conducted in cooperation with the Agriculture Canada Research Station at Regina, and the Commonwealth Institute of Biological Control Station at Delemont, Switzerland.

- 30 -

FOR IMMEDIATE RELEASE

1984 CUSTOM RATES FOR FERTILIZER APPLICATIONS

Custom rates charged for fertilizer applications this year were less than the rates charged in 1983, according to the annual Alberta Agriculture survey of custom applicators. The survey was conducted by the statistics branch in co-operation with the farm business management branch in July 1984.

The following table compares 1983 and 1984 fertilizer application rates. The rates are for liquid or granular fertilizer and the charge is for custom application only.

Charge For Custom Fertilizer Application Per Acre

	<u>Most Common 1983</u>	<u>Range 1984</u>	<u>Most Common 1984</u>
Pull Type	\$2.50 to \$2.75	\$1.25 to \$2.50	\$1.75 to \$2.50
		* \$4.60 to \$7.00	* \$4.60 to \$7.00
Floater	\$2.25 to \$3.00	\$2.00 to \$3.50	\$2.75 to \$3.00
Truck Mounted	\$2.75 to 3.25	\$2.25 to \$3.00	\$2.50 to \$2.75
Air Seeder	—	\$4.00 to \$7.00	\$4.00 to \$5.00
Fixed Wing	\$3.60 to \$5.00	\$3.50 to \$5.50	\$3.50 to \$4.00
Helicopter	—	\$3.50	\$3.50

*deep banding; includes cultivator

Anhydrous fertilizer ranged from \$390 to \$567 per tonne, while the most common charge was \$425 to \$450 per tonne. This price includes the product at spring price, delivery and applicator rental.

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1984 Custom Rates For Fertilizer Applications (cont'd)

Peggy Johnson of the farm business management branch suggests the decrease in custom fertilizer application fees is due to more competition between custom applicators. She says that more farmers are applying their own fertilizer to reduce farm costs. Therefore, there is less demand for custom applicators, who are forced to lower their prices in order to keep customers.

Ms. Johnson says that in past years the custom application rates were quoted separately for southern, central and northern Alberta to allow for regional price differences, but this year the survey showed little regional difference in the prices charged across Alberta. However, there was a regional difference in the most common applicator used. In southern and northern Alberta, the most common applicator was the floater (65 per cent and 53 per cent respectively). In central Alberta the most common spreader used was a truck-mounted applicator (54 per cent).

Advantages of the floater-type applicator that enhance its use in southern Alberta are its large capacity and its speed and accuracy of application. In northern Alberta the floater has a design advantage: its large, 'balloon-type' tires enable application of fertilizer in wet fields where other applicators would get stuck. The disadvantage of floaters is that they are more expensive to purchase than other applicators.

An advantage of the truck-mounted spreaders used in central Alberta is that they are less expensive. The disadvantages are that application is slower and less accurate. However, on pasture land or in small fields these factors are less critical.

More information on custom rates for all farm operations can be obtained from your local district agriculturists, from the farm business management branch (556-4240) or from the statistics branch (427-4018) of Alberta Agriculture.

FOR IMMEDIATE RELEASE

OUTDOOR FARMERS' MARKETS

Outdoor farmers' markets offer the shopper a special atmosphere. Many towns in Alberta are now holding their markets outdoors.

Many centres lack suitable facilities for farmers' markets or the available space is costly. Selling vegetables and fruit directly from the back of a truck saves on moving large quantities of produce indoors and provides almost unlimited room for the market to expand.

William Bayda, administrator of farmers' markets with Alberta Agriculture, says the weather can create inconveniences, but during rainy or very hot sunny days, a tarp canopy usually provides sufficient protection.

Red Deer Farmers' Market, one of the oldest, more successful outdoor markets in Alberta, has been selling for a number of years from a city-owned parking lot in the centre of the city.

Fort Macleod is also using a town parking lot across the street from the Fort Macleod historical site to hold their outdoor market.

The city of St. Albert allows a street to be blocked off and used as a market. Old Strathcona in Edmonton uses a large city vacant lot along the CPR tracks near Whyte Avenue. Lacombe uses a paved private mall parking lot.

Blackfoot Farmers' Market, a large food terminal market in Calgary, has been selling large quantities of vegetables and fruit directly from trucks this year since their large fire last fall.

Most of the smaller markets still prefer to sell indoors, Mr. Bayda says. "A greater variety of crafts and baking goods can be sold. Often coffee, sandwiches and pastry are served. Extra tables and chairs are set up so the public can socialize."

August 27, 1984

FOR IMMEDIATE RELEASE

FINANCIAL ASSISTANCE AVAILABLE TO ALBERTA FARMERS

The 1984 edition of the Alberta Agriculture publication entitled "Assistance Available to Alberta Farmers" is now available. It contains an update of assistance programs available from the provincial and federal governments and features nine programs that have been added since the last edition.

Alan Shideler, of Alberta Agriculture's farm business management branch, says the publication outlines the terms for 49 assistance programs and states who qualifies for each. "In today's current economic climate, this publication should be of great interest to Alberta farmers."

For example, he says, a program of particular interest is the Fruit and Vegetable Cold Storage Program where the federal government will pay up to one-third of construction costs to a maximum of \$500,000. Another program is the Mobile Home Loan Insurance Program. This program is underwritten by Alberta Home Mortgage Corporation and allows borrowers to obtain up to 85 per cent financing and longer amortization periods from their lender when purchasing a new or used mobile home.

To find out more about these and other programs, you can obtain a copy of the publication "Assistance Available to Alberta Farmers" (Agdex 871) from the Farm Business Management Branch, Box 2000, Olds, Alberta, T0M 1P0 or by writing to the Publications Office, Alberta Agriculture, J.G. O'Donoghue Building, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6.

August 27, 1984

FOR IMMEDIATE RELEASE

REGIONAL 4-H SPECIALIST APPOINTED

Ted Youck, head of Alberta Agriculture's 4-H branch, has announced the appointment of Adele Reichert to the position of regional 4-H specialist in Vermilion.

Ms. Reichert graduated from the University of Manitoba in 1981 with a B.Sc. in agriculture. Since then she has worked with Alberta Agriculture as a district agriculturist in Drayton Valley, Thorhild and Lloydminster. As well, she has done both research and extension work with Manitoba Agriculture and has held research positions with Agriculture Canada and Saskatchewan Wheat Pool.

In the position of regional 4-H specialist at Vermilion, she will provide leadership in 4-H and community activities in the northeast region.

- 30 -

